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Unions risk legal action over leadership polls

by David Jobbins

The two chief higher education trade unions, the Association of University Teachers and the National Association of Teachers in Further and Higher Education, may fall foul of the new Trade Union Act that requires their leaders to be directly elected by individual members.

The college lecturers' union risks inevitable legal action if a special conference called for tomorrow ends as senior officials predict.

Informed calculations show that changes in the Natfhe rule book aimed at minimal compliance with the 1984 Trade Union Act will almost certainly fail to get a two-thirds majority at the conference, which could end abruptly with the rejection of a package drawn up by the executive.

If as union leaders fear, the changes cannot be endorsed, Natfhe will find itself at the sharp end of union defiance of the law following the decision of the Transport and General Workers' Union this week to comply with the new rules governing elections.

The AUT faces the first test of its own amended rules later this month when elections take place for its national executive. In the past, the executive has been elected from and by its national council. But last May the rules were changed to allow for a ballot of the membership if there are moves to challenge the executive chosen by the council.

The association took legal advice and is convinced that this complies with the Act. Natfhe too plans to introduce direct elections to its national council, which it is advised is its "principal executive" under the Act.

But a number of regions have either tabled amendments or decided to oppose this change, including Outer London, Western, West Midlands and North West. There is also a proposal from East Midlands to delay implementation until January 1987.

The union's Broad Left grouping decided two weeks ago to oppose the changes, but its decision came after those by most of the regions, and was not likely to have been influential in Western whose opposition seems based on a conservative desire to keep a system which it believes has worked well.

If the changes are rejected, the union would be open to a complaint to the certification officer and then to court action. Union leaders believe that they can buy sympathy from the courts by showing that they had intended to comply and had called a special conference to achieve their aim.

But Mr Gerald Hartup, campaign director of the right-wing Freedom Association, said: "There seems to be nor reason why Natfhe should not comply with the Act and if they do not they will face problems.

"We would go out to find Natfhe members who were prepared to complain to the certification officer."

Some union leaders are so worried that they have been talking of requisitioning a further special conference to reopen the question before next May's annual conference, the next occasion on which rule changes could otherwise be considered.

Natfhe's conference earlier this year opted for a policy of minimal compliance rather than outright opposition to the Act. The executive's view has been that the alternative is to risk losing control of the rule book to the courts.

General secretary Mr Peter Dawson said: "Minimal changes overwhelmingly approved by the executive are absolutely essential to the good conduct and satisfactory operation of the union."

NAB seeks showdown on Joseph ultimatum

by Carolyn Dempster and John O'Leary

Angry leaders of the National Advisory Body this week demanded an emergency meeting with Sir Keith Joseph, Secretary of State for Education and Science, following two further rebuffs to add to his ultimatum on teacher training.

The meeting was hastily scheduled for next Thursday, when there are certain to be heated exchanges on four topics:

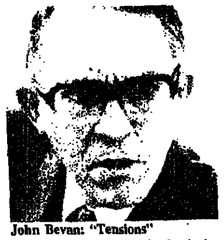
- the timetable for revised advice on teacher training;
- the future of De La Salle College, Manchester;
- capital spending on polytechnics and colleges;
- the size of the advanced further education pool.

Sir Keith will be warned that the level of cuts necessary in 1987/88 now seems certain to be twice that originally forecast because of the £15 million shortfall in this year's budgets. The commitment to restore funding levels next year would mean cuts of 10 per cent in first-year student numbers.

Two more surprise setbacks to the NAB's authority came this week with Sir Keith's decision to offer De La Salle another year's reprieve from closure and the news that £4.5 million had been cut from the provisional budget for capital projects.

The NAB committee, meeting for the first time under the chairmanship of Mr George Walden, under-secretary for higher education, had already decided to demand a meeting with Sir Keith to settle the row over teacher training. Its members unanimously refused either to meet Sir Keith's new May deadline or to accept his alternative that allocations for 1987 to 1990 should be set by the Department of Education and Science.

Mr John Bevan, the NAB secretary, said later: "The issue is not just one of timing. It is the relationship between the committee and the Secretary of State in offering him advice on how to conduct our overall planning exercise." He said that the reduction in the capital budget and the rejection of NAB advice to close De La Salle had added to the tensions which had led to the request for a meeting.



John Bevan: "Tensions"

Sir Keith's concession to De La Salle is the latest chapter in the college's three-year battle for survival. He has given the college until March 31 to come up with a fully developed merger proposal with the Liverpool Institute of Higher Education.

This effectively means that the college will stay in business until 1989 to see through the last of its 630 students, even if the merger proposal is ultimately turned down. Sir Keith has also agreed to an additional intake of 200 students in diversified courses in autumn 1986.

Since November 1983 when initial teacher training at the college was axed on the advice of the Advisory Committee for the Education of Teachers, De La Salle has had to lodge its case for continued existence for each of the successive three years.

In September this year, a rapidly drawn up proposal for a merger with the Liverpool Institute was put forward to the NAB in a final bid to persuade the board to rescind and earlier decision on the withdrawal of advanced courses. The Voluntary Sector Consultative Council will the

continued on page 3

Switch has failed, says careers body

The Government's "switch" policy has failed to remedy shortages in technology and the physical sciences, claims the Central Services Unit for Graduate Careers and Appointments Services.

The restriction on entry to university arts courses has not brought a commensurate increase in the number of technology and science graduates desired, and in 1984 – for the first time in decades – produced a marked drop in the number of first degree students. These findings are contained in the CSU's annual report for 1984/85 and are based on an appraisal of graduate statistics for the two years to July.

In the CSU management committee report to the Committee of Vice Chancellors and Principals and the Committee of Directors of Polytechnics, they comment that engineering conversion courses in higher education are unlikely to provide a long-term solution, however effective they are as a temporary expedient. The policy and process should start earlier by attracting more pupils, and particularly girls into science A levels.

Acute shortages in the supply of graduates are building up in the wake of better employment prospects – noticeably in the fields of light electrics, computers and in technical areas, they warn. Unless corrective action is taken, the graduate supply will not be sufficient to meet expanded market demands in future.

Many of the shortages could be eased if there was a substantial increase in mathematics graduates or applied and physical science graduates over the next five years. However, attracting bright pupils to study science at A levels will require greater numbers of teachers of high calibre, states the report and points out that the larger graduate careers advisory services are reporting a high proportion of disillusioned teachers who have approached them for advice on entry to alternative occupations.

In addition, the number of male first degree graduates entering a year of teacher training in 1984 in mathematics and physics was a fifth smaller than in 1983.

Using his loaf: Mr George Walden, under secretary for higher education, meets students in the bakery department of Salford College of Technology on his first engagement as a minister. He was visiting the college to launch a PICKUP project backed by £92,500 of Government money, bringing together three colleges and two polytechnics with 19 north-west firms involved in food processing.

Architecture schools saved

Only one polytechnic of architecture was recommended for closure, rather than the three originally proposed, when the committee of the National Advisory Body met this week.

The committee rejected the advice of the NAB board to close Huddersfield Polytechnic's school of architecture and decided only to recommend the closure of the school at North East London Polytechnic.

A transbinary working party had proposed that both should close, together with one of the Inner London Education Authority's four schools and that at Queen's University, Belfast. The ILEA's case for retaining all its schools had been accepted by the NAB board.

The University Grants Committee met yesterday and was expected to reprieve the Queen's school, although Sir Peter Swinnerton-Dyer, the UGC chairman, was to propose that the overall allocation for the universities be accepted. The NAB agreed to reduce the allocation of places to its institutions to accommodate Huddersfield.

Mr Gerry Fowler, director of North East London Polytechnic, threatened to take legal action if Sir Keith Joseph, Secretary of State for Education and Science, accepted the advice to close the NELP school. He said the polytechnic would seek a judicial review on the grounds that the NAB secretariat had attempted to close the school last year and did not act in an impartial manner.

Boost for education across EEC frontiers

by Peter Aspden

BRUSSELS

The European Commission has announced a two-pronged initiative to increase student mobility and boost higher education links with industry across community frontiers.

The new moves are part of a campaign to bring education to the forefront of European Economic Community affairs, a conference on higher education co-operation in Brussels was told.

Mr Peter Sutherland, the commissioner responsible for education, told about 400 lecturers from all over Europe that education had for too long been the "poor sister" of European policy, and that the two initiatives were by far the most significant ever launched by the community in that field.

One of the initiatives, COMETT (Programme of the Community in Education and Training for Technology) was due to be released by the Council of Ministers in Brussels yesterday. If the commission's scheme was to be adopted without amendment, it would provide for about £47 million to be spent in the next three years on improving higher education/industry co-operation on advanced training in the new technologies.

This would be complemented by a scheme called ERASMUS to enable many more students to spend recognized study periods in other community countries (European Action Scheme for the Mobility of University Students). The programme's target would be for 10 per cent of all students to have had study experience abroad by 1992, instead of the current figure of 1 per cent.

The implementation of COMETT and ERASMUS in concert would represent a "quantum leap" in educational co-operation, said Mr Sutherland.

The Brussels conference was held to examine the progress of the community's joint study programmes, which already made provisions for students and academics to spend part of their courses in another member state.

Nearly 500 such programmes have been established in the last 10 years, with Britain leading the way, by its involvement in two-thirds of them. Mr Sutherland said the scheme had paved the way for student and staff mobility.

The Soviet experience, 15

As a student, a researcher and then a teacher I lived through a series of bewildering learning experiences caused as much by the subjects I was studying as by the institutions in which they were taught. So I celebrate a slim volume that has just been published by the Royal Institute of British Architects Building Industry Trust. It is by Donald Schon, a former Reith lecturer and professor of urban affairs and education at Massachusetts Institute of Technology and is about *The Design Studio, an Exploration of its Traditions and Potentials*. It is short of a table of contents and an index and has a few delightful misprints like "the *heat* of the curriculum" and "*growning* intellectual interest", which reflect its informality.

Taking a hybrid course that involved design work in Edinburgh College of Art and classes at the university, I hurried from studio to lecture room and back and found the contrast between the studio instructor's incoherent example and the tutor's taking every argument to bits more exhausting than the effort of going from one to the other. I thought at the time that the university method of teaching must be the right one, however boring it might be, and slowly came to recognize that the studio had a potential undreamed of in the orthodox academic milieu.

Now Donald Schon has produced a rationalization about the life of the studio that would have cheered me at the time and I hope will give confidence to hundreds of architectural and other design-based students. And others as well. For he argues that "the schools of other professions have a great deal to learn from the unique institution of architectural education, the studio".

In the orthodox academic mode, professional competence consists in the application of systematic professional knowledge to the instrumental problems of practice. In contrast, the architectural studio has developed traditions of learning-by-doing – the tradition of project-based education, which often seems innovative when it is introduced to other professional schools. What makes it particularly relevant to them is today's dawning recognition that all competent practice involves a kind of design. And architecture is the very prototype of design activity.

That is a telescoped summary (much of it in Schon's words) of the justification for the book. He then develops the theme of knowing-in-action and explores the traditions of the architectural studio. In his exemplary studio, a tutor called Quist engages in a drawn out exercise in teaching a student called Petra as a result of which both seem wiser and abler. I recognize the signs and the changes, having spent many years in such a situation. While Petra's problem solving has led her to a dead end, "Quist's virtuosity lies in his ability to string out design webs of great complexity", moving from "What if?" to a decision with binding implications for further moves.

I think I will leave you there, recognizing only too well that "the studio master's messages are often troubled by vagueness, ambiguity or obscurity". The problem for an architect is that unlike some other students he has to make a decision and so something which may be irreversible. The discipline and the anxiety can be devastating. Even for the teacher.

Patrick Nuttgens

letters to the editor

AUT shooting itself in the foot

Sir, – It is clear from recent articles in *The THES* that the AUT is considering strike action. I hope they will think again: a strike would be disastrous.

For a start, it would not work. A strike in a public-sector service can exert pressure only indirectly, by relying on the Government's desire (or political need) to maintain the service. In the case of university education, the present Government has demonstrated the opposite desire: even if the AUT action were to be severe enough to damage the education system, then, far from exerting pressure on the Government, it would simply be following existing Government policy. The only difference would be that the AUT would effectively be offering itself as a scapegoat for the damage caused by Government cuts in education.

Secondly, the strike proposal ignores the Government's attitude towards strikes. The Government regards a public-sector strike not as a sign of dissatisfaction which it needs to resolve, but as a challenge to its authority which it must overcome at all costs (social as well as economic); this is clearly seen in its response to the miners' strike and the teachers' strike. In view of this, the effect of a strike by university teachers would be to ensure that the Government does not pay attention to the AUT case.

Thirdly, I do not believe that the majority of AUT members would support a strike, either for the reasons above, or because most of them care about education and enjoy doing research, and do not want to damage either of these activities. A strike call which few followed would hardly help the AUT to argue an effective case.

Even if it would work, I think that a strike would be the wrong weapon for the AUT; a cleverer and more subtle approach would be better for the AUT's image as well as more likely to be effective. There must be ways in which university staff could use their real strength, namely specialized knowledge and understanding, to embarrass the Government, or to interfere with its policies.

Alternatively, given the Government's paranoia about propaganda, one could threaten to include anti-Government, or Marxist, propaganda in every lecture course. I am sure that, if the AUT wants to exert pressure on the Government, it would do far better to use some intelligent thought, and plan campaigns on these lines, than to go for the inappropriate and, in this case, ineffective weapon of a strike.

Yours faithfully,
P. T. BALDRY,
The City University,
Northampton Square,
London EC1.

Question of priorities

Sir, – Many of those who have commented on the decision of the National Advisory Body committee to preserve access rather than the unit of resource in planning provision for 1986/87 have clearly misunderstood the nature of the choice facing the committee.

You yourself (*THES*, November 29) talk of the committee voting "to admit extra students", and Gerry Fowler in the same issue quantifies this by claiming that NAB has decided "to increase the target number of students next year by 5,500 without any commensurate increase in funding". This is not the case. The planning figures agreed for next year provide for no increase in intakes on the 1985/86 level. Total 1986/87 planned intakes will be very slightly below those for 1985/86. Allowing for students already on course, it is estimated that this will produce a very small (0.4 per cent) increase in the total number of students.

The problem arises because the Government has not provided sufficient funds to allow us, even in a steady state position, to maintain the unit of resource. The gap is of the order of £15 million, though the precise figure depends on the assumptions made about inflation.

The committee put forward a strong and sustained case for a level of funding sufficient to allow both access and the unit of resource to be maintained. When the Government announced its decision, the committee expressed its disappointment and dismay in the strongest possible terms. Once the funding sum was fixed, however, it was faced with a hard choice – to maintain intakes at the national level and allow a further fall in the unit of resource, or to result *cut* intakes by over 5,000 students.

The latter option is the equivalent of withdrawing intakes to all courses at two polytechnics. It would have brought into effect a year earlier the planning assumptions of the 1987/88 exercise about which there has been so much consternation, but without the detailed planning and consultative processes which are part of next year's exercise. To have planned to maintain the unit of resource in 1986/87 in the face of the Government funding decision could have meant the closure of some 200 courses.

There were no easy options available to the committee when they considered this matter and made their decision. After long debate, they took the view that they could not go down the road of reducing access in 1986. However, they have given notice that this is precisely what will happen in 1987/88 if the funds provided are insufficient to enable the previous unit of resource to be restored.

Yours faithfully,
LESLIE WAGNER,
Deputy secretary,
National Advisory Body for Public Sector Higher Education.

Sir, – I am not sure of the target of your barbed remark on "the obsessive envy of some polytechnic and college leaders". If it is aimed at those who believe that the unit of resource in the public sector of higher education is too low, may I stand up and be counted? May I also identify myself with those who cannot see any reasonable basis for different levels of funding where the same level of teaching and courses are being delivered in the public and private sector of higher education?

My "obsessive envy" springs from the desire that the students of the Polytechnic of Central London should have the same laboratory, library, general and social facilities as their counterparts in universities. I cannot see any moral basis for maintaining two classes of citizenship in higher education.

I would also hope and expect that any polytechnic directors on the National Advisory Body are pointing out this inequality clearly, loudly and often.

Yours faithfully,
TERENCE BURLIN,
Rector,
Polytechnic of Central London.

Protectionist

Sir, – John O'Leary's article did well to map out the complexity of the arguments of those bodies which seek to curtail architectural education, but it did not point out just how shaky these arguments are.

The National Advisory Body has recently designated design courses a "protected category" in its imminent restructuring of art and design education. It seems extraordinary that it does not extend this protection to architecture courses, or rather it would seem so if one did not know that the Royal Institute of British Architects, with the worst of motives, has been trying to curtail entry into the profession for years.

The RIBA's involvement with architectural education is notoriously wrong-headed and probably ethically dubious. They are looking for ways to restore the profitability of their practices, which have been eroded by changes in the *nature*, not the size, of the workload.

The RIBA's own survey of architects' incomes, published recently, points to the emergence of a sizeable group of architects in private practice with small incomes. It is these architects that the RIBA alleges are "under-employed". While it is probably true to say that they could handle more work than they do, the state of the job market in the profession suggests that these people could find employment if they chose to. They are in private practice because they prefer it; they probably have not been in practice very long and their workload will pick up in time, for it is these architects, with their low overheads and an ability to tackle small, low-profit commissions, who best fit the description of the "community architect" that is so widely called for.

It is considerations of precisely this kind of change in the pattern of practice in the profession that is so conspicuously lacking in the present official critique of the architecture schools. While the profession itself is emerging from turmoil, the NAB, the University Grants Committee and HM Inspectorate seem to be trying to force it back into the mould of the disgraced technocratic giantism of the 1960s. With disarming naivety, HMI declares that the schools put "too great an emphasis on design".

The architects who did not put "too great an emphasis on design" in the 1960s are now the ones who are suffering from the effects of that property speculation. Architectural philistinism is fortunately becoming a thing of the past, and is now seen to be bad business. It is a pity that the NAB, the UGC and HM1 seem oblivious to this, but that the RIBA should be, is an outright scandal.

Yours faithfully,
PATRICK KEILLER,
School of architecture,
North East London Polytechnic.

Under par

Sir, – I understand that New Zealand is conducting a campaign to recruit technical college tutors in Britain.

By all means come to NZ but, as one who has taught part-time in a technical institute in Auckland, I feel applicants should be aware of the following.

1. The current shortage is due to emigration of tutors to Australia where the salaries are much better, as are the conditions of service.

2. The OECD in 1982 rated NZ as having the highest rate of personal tax. VAT (called goods and services tax) is being introduced next year, and will be levied on everything, food and rates included.

3. There is an acute housing shortage in Auckland and also in the other main centres. Mortgage money costs over 20 per cent per annum, and is suitable to those with a savings record here of three years. Only two thirds of the value of the property can be raised on first mortgage. Cash is needed for the balance.

4. Manufactured goods cost rather more than in Europe. Public transport is poor or virtually non-existent, so it is essential to bring one's car to NZ, as I did. Parts for other than standard models may not be obtainable.

5. The teachers' pension scheme is not reciprocal with Britain, so one should maintain membership of the British scheme until one is properly settled here. Social security benefit, including old age pensions, are reciprocal, however.

Yours faithfully,
N. PARKER,
PO Box 23652,
Papatoetoe,
Auckland 6,
New Zealand.

Non-vocational?

Sir, – You report (*THES*, November 22) that the National Advisory Body is to plan further cuts in "humanities and other non-vocational areas" – but who is responsible for perpetuating the destructive myth that studies in the humanities are not relevant or useful for subsequent employment?

In the same issue you report on the University Grants Committee asserting that arts courses are "as vocationally relevant as a science course", and on studies from Sweden indicating that "industry needs to recruit more humanists". If the humanities are to be destroyed, let it not be on the spurious ground of their "non-vocational" nature.

Yours sincerely,
B. C. SOUTHGATE,
School of Humanities,
The Hatfield Polytechnic,
College Lane,
Hatfield, Herts.

Career break

Sir, – In her article "The slow path to equality", (November 22), Felicity Jones reported on the very valuable work being done to provide new opportunities for women in non-traditional fields. Unfortunately, it is unlikely that this work will contribute to any change in the low proportion of female academic staff.

In order to increase the proportion of *tenured* women in universities, it is essential to provide proper arrangements for the career break, including retraining in research, and to make available permanent, part-time posts.

My experience in setting up a new fellowship scheme for women wishing to retrain in research in science and engineering shows that there are first-rate women available and eager to return after a career break for family reasons.

Yours faithfully,
DAPHNE JACKSON,
Dean of Science, Surrey University.

Majority verdict

Sir, – Your thoughtful editorial on "Free speech on campus" omits one fact. It was the politicians, not the universities, who reduced the age of majority from 21 to 18 years. This has altered the relationship between tertiary institutions and their students – *in statu pupillari* hardly exists any longer. Students behave like other adults in our society of confrontation, which Sir Keith Joseph and others have helped to create.

Yours faithfully,
PETER HAVARD-WILLIAMS,
Head of Library and Information Studies, Loughborough University.

Letters for publication should arrive by Tuesday morning. They should be as short as possible and written on one side of the paper. The editor reserves the right to cut or amend them if necessary.

V-cs return to the offensive

by Peter Aspden

Vice chancellors and senior academics have returned to the offensive in their campaign to discredit the Government's policies on higher education in general, and the contents of the Green Paper in particular.

After a comparative lull over the summer months and while they have been putting the finishing touches to their University Grants Committee research responses – due last weekend – the vice chancellors are keen to press home their case for higher funding.

They will also be anxious in the coming months to be seen to be protesting, mindful of the Secretary of State for Eduction, Sir Keith Joseph's recent comments that they needed to convince the public at large that they were worth extra money.

One of the strongest attacks this week came from the director of London University's Institute of Education, Professor Denis Lawton, who wrote directly to Sir Keith accusing him of being over-critical of those working in higher education.

"It is also important to be generous with praise for those involved in the system rather than to indulge in so much criticism. A Secretary of State who praises those working in the system might find it easier to persuade Cabinet colleagues to finance the system adequately," he said.

He added that the education system of England and Wales had been one of the best in the world, but that it had "deteriorated noticeably since you became Secretary of State." Concentrating on the crisis in teacher education, he said teachers' morale was "exceedingly low", there were too few high quality recruits to the profession, and the situation in the field of mathematics was now disastrous.

"There is now a real danger that even the existing inadequate level of specialized teaching from the higher education system which is not producing enough mathematicians to make available reasonable numbers of teachers," he said.

The vice chancellor of London, Lord Flowers, accused the Government of seeming "incapable of enunciating a coherent policy for education" at a presentation of graduates ceremony in London.

"Surely there is something paradoxical when the first Government of this country ever to be led by a scientist presides over an exceedingly damaging scientific brain-drain – and wrings its hands because political dogma, with precious little economic achievement to back it up, forbids the investment of adequate public funds," he said.

"The education budget has grown less than almost any other in recent years. No doubt the Department of Education and Science has earned Brownie points with the Prime Minister, but history may judge them differently."

Professor Philip Reynolds, who retired as vice chancellor of Lancaster University in the summer, said the over-riding emotion in the delivery of his final report to court was not one of sadness or pride, but anger.

"My anger has three causes: the Government's reneging on its promises, the impossibility of repeating without fundamental damage measures of economy by which the system has hitherto managed reductions in funding, and the quality, tone and objectives of the Green Paper in May," he said.

"Universities have been ineffective in persuading the nation of their importance for the nation's well-being. They have been protected from the consequences of their ineffectiveness by the enlightenment of governments. [illegible] defence."

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National Union of Students president Phil Woolas adds to the Christmas mail destined for Lord Young, the Secretary of State for Employment, protesting at the Youth Training Scheme. The letters were from a students' rally in Sheffield.

A giant letter is being sent to Mr Brian Nicholson, chairman of the Manpower Services Commission, claiming that it, too, has failed Britain's youth.

Proposed fund 'could provide a lifebelt'

by John O'Leary

An unnamed minister still in the Government has suggested a radical new method of funding universities to save them from continuing cuts in their budgets, Professor Robin Marris, of Birkbeck College, London, said in a lecture last night.

Professor Marris outlined the proposal as an alternative to the policy contained in the Green Paper on higher education, which he described as "probably the worst state paper in British history". He said it had converted him from a constructive critic of the Government into "a raging paranoic".

Giving the Suntory-Toyota lecture at the London School of Economics, Professor Marris argued that the higher education had been severely undervalued. The Government had disregarded its own sources of information, for instance in projecting student numbers, and was "raising two fingers to society".

His alternative funding system was designed to protect the universities without involving big increases in public spending. It had been conceived by the anonymous minister and then worked up into a report by Professor Marris in 1982, but the idea had been taken no further.

The scheme hinged on the abolition of student grants paid by local authorities and would place the existing budget for student support, together with all other money now paid to universities, under the control of the University Grants Committee. Universities would charge all students [illegible] and would take over responsibility for student aid, which would be paid out of their own budgets on the basis of a more sophisticated means test.

University grants would be divided into two parts, one selectively rewarding the best research and the other reflecting peer group evaluation of teaching potential. The recruitment of foreign students would be positively encouraged, as would the raising of private funds.

Student aid might take the form of remission of fees, the awarding of maintenance grants or subsidies to interest on bank loans raised through the good offices of the institution.

The result, said Professor Marris, would be greater autonomy, incentives towards greater efficiency and a loans system which would work. Universities would have a greater [illegible] than that in state universities in the United States.

Medical initiatives reprieved

The Medical Research Council is pressing ahead with three large new initiatives said last year to be under threat from lack of funds.

The council's latest annual report shows that a combination of redeployment and contributions from charities has raised funds to launch a new Institute of Molecular Medicine at Oxford and a molecular neurobiology unit in Cambridge.

And the MRC is still laying plans for centre for collaborative research with industry adjoining the National Institute for Medical Research at Mill Hill in London.

In addition, the council has just been awarded an extra £2.5 million a year from Sir Keith Joseph's recent £15 million bonus for the research councils, the MRC secretary Sir James Gowans revealed this week.

Last December, Sir James warned that all three initiatives could be put at risk by declining real support from the Department of Education and Science, now running at £117 million.

However, the Wolfson Foundation and the Edward Penley Abraham Research Fund have stepped in with £1.5 million to back the molecular medicine institute, designed to accelerate application of molecular biology to human disease. And the Cambridge neurobiology centre will be funded from money saved on closure of the council's neurochemical pharmacology unit in Cambridge and from other work at Imperial College, London.

The industrial liaison centre, due to open next year in laboratories now used by the Imperial Cancer Research Fund, has already attracted £300,000 in support for pilot projects from the Department of Trade and Industry's Biotechnology Unit.

Dr Dai Rees, director of the National Institute for Medical Research, said this week he was encouraged by progress in setting up the industrial centre, which was trying to do a difficult job in defining strategic research which fitted the needs of specific companies.

'Protect social workers' plea

by Felicity Jones

A demand for special protection for social work training follows the inquiry report into the death of four-year-old Jasmine Beckford, published this week.

The Central Council for Education and Training in Social Work wants the training to be seen as a protected category, like teacher training, for the purposes of the National Advisory Body cost-cutting exercise.

The council had already set up a review of training and post-experience courses on child abuse in anticipation of the Beckford inquiry findings.

It is to investigate whether current training adequately covers the area of child abuse and whether tuition and practical training should be extended.

At its September council meeting in Harrogate, CCETSW passed a resolution proposing that the training period should be extended from two to three years which is one of the main recommendations of the Beckford report in its comprehensive chapter on social work training.

The Beckford inquiry panel also recommends that training should move towards increased specialization and away from "generic" social work. This is to be examined by the council along with the call to look at legal training.

"In the light of the Beckford report's recommendations we are obviously most concerned about the proposed 20 per cent cut in social work under consideration by the NAB," a spokesman for the council said.

"On the one hand there are clear indications that social work training must be extended. Meanwhile, the cuts in social science subjects run completely counter to that widely held view."

The council is also concerned that post-experience programmes in child abuse are not attracting sufficient numbers.

It intends to embark on discussions with government, social service departments and workers in the field on the type of post-experience course which is required.

Currently nine post-experience courses out of 44 are being offered on child abuse. They range from part-time provision over three years to full-time course of 34 weeks.

If the Beckford findings were implemented then child abuse would become a specialism within the training at qualifying stage.

PNL managers see red over Browne report

Former senior managers of the Polytechnic of North London, including its former director and chairman of governors, this week hit back at the Browne report which criticized their running of the polytechnic.

The managers' statement which went to the PNL court of governors this week said the Browne report was misleading and contained significant errors of fact; it failed to consider key evidence, to corroborate statements by staff and students, and to appreciate the legal relationship between the polytechnic and the Inner London Education Authority.

Their counterblast is in reply to the report of the committee headed by Miss Sheila Browne, principal of Newnham College, Cambridge, which was published two months ago. The committee's report on the management and organization of the polytechnic, including the disruption surrounding National Front student Patrick Harrington, described a divided polytechnic, in which staff and students felt powerless, and where the director, directorate and court "failed to appreciate what management had to deliver".

The new statement is signed by Dr David MacDowall, PNL's director who took early retirement this year, former deputy director Mr Tom Roberts and Mr John Diamond and Mr Harold Osborn, former chairman and vice chairman respectively of the court of governors who both retired from office this year. The court of governors has passed the statement to the polytechnic working party considering the Browne report.

It accuses the Browne committee of not checking facts in polytechnic archives, and of not giving any opportunity to the four signatories – "those most closely involved with recent events, such as the former chairman, vice chairman and director" – to point to contrary evidence.

It rejects the criticisms of management, saying that in the years up to 1984, substantial if undramatic progress was being made in the internal management and organization of PNL. Instead it blames the polytechnic's staff and students for the problems, and above all the ILEA.

NAB seeks showdown

continued from front page

Catholic Education Council and the National Association of Teachers of Further and Higher Education actively lobbied in favour of the merger, but were rebuffed when the NAB turned down the application.

Response to news of the reprieve has been one of immense relief according to college principal Brother Wilfred. "Naturally we were very pleased, but also surprised as it was obviously a last-minute decision," he said.

Detailed decisions on capital spending projects were postponed by the committee, when it was told that it had only £32.5 million to distribute. The NAB board had made recommendations for allocating the £37 million budget provisionally set for equipment, minor building work and other projects.

● The committee agreed to a request from the NAB board for a joint meeting to discuss funding levels, despite some reservations that the occasion could turn into a slanging match. The meeting is unlikely to take place before pool allocations for 1986/87 have been determined.

Loss of 325 Scottish posts predicted

Edinburgh, Glasgow and Strathclyde Universities have warned the University Grants Committee that if an annual 2 per cent cut is imposed on them they face the loss of more than 325 academic posts by the end of the decade.

And Glasgow says the voluntary redundancy scheme it would need to implement would use all its financial reserves.

Edinburgh says that the UGC's own income and inflation figures would mean an accumulated deficit of almost £20 million by 1990, but that Edinburgh's actual financial problems could be even worse.

Glasgow accuses the UGC of taking little or no account of the Scottish University tradition in its guidelines on the rationalization of departments.

In Scotland, arts, science and social science students have a wide choice of first and second level courses, all of equal academic weight, and not tied to a particular departmental curriculum.

But Glasgow has produced a detailed plan outlining the number of posts which would be lost in various areas, for example 22 posts in medicine, more than 11 posts in language studies, and eight posts in humanities.

It warns that losses in the divinity departments could jeopardize the qualifying curriculum for the ministry of the Church of Scotland, nearly half of whose entrants study at Glasgow.

Edinburgh says it is maintaining its moratorium on filling vacant posts, but that some areas, such as clinical medicine, Scots law, and artificial intelligence, will be specially protected.

Dr John Burnett, Edinburgh's principal, in an oblique attack on the Jarratt report on efficiency in the universities, said: "Much of the thrust of Jarratt was decisions being made at the top and pushed downwards. We trust our colleagues to work out tactics and details in faculties and departments, and recommendations will flow upwards."

DON'S DIARY

MONDAY

Tidied my desk with the intention of doing some "serious" writing. Instead find myself reflecting on the fact that I am, once more, without paid employment. When first made redundant, a few years ago, I savoured to the full the pleasures of enforced idleness – understandably after those awful last years when colleagues and I conscientiously planned for the demise of our own college and, professionally speaking, of ourselves as well. Now, without the part-time job I've been doing for the last couple of years, I'm not so sure after all that I want to be finally and definitively "retired" – at least "not yet Lord", to quote St. Augustine on quite another matter and presumably when he was much younger than I am now. However, I'll give this retirement business a whirl, for I've more than enough to keep me usefully and pleasurably occupied. After all, if it doesn't work out I can always take *another* part-time job – assuming, of course, that somebody will give me one.

TUESDAY

A grey, wintry afternoon, with a wood fire crackling in the grate. The fire, and the view from my back window, reflect another change in my life. After 16 years in a Manchester suburb my wife and I have at last moved to the country, and it has changed, incomparably, *the quality* of our lives. Beyond our back garden fence is a small pond surrounded by trees, their almost horizontal branches frozen in permanent eastward flight from the prevailing westerly winds. To the pond itself, at various times in the last 14 months, have come wild duck, moorhens, and even, on a couple of occasions, a heron. The last was a dishevelled, mournful looking bird which, one winter's day last year, stood silent and motionless for hours in the shallow water before flapping disconsolately away. A few days ago, however, it returned – if indeed it was the same bird – and this time stayed two days. At the moment, however, it is the rooks and crows which are most in evidence.

I am indescribably moved by these simple, age-long happenings, and also by their setting. Beyond the pond is a small valley, and beyond that, as far as the horizon, the gently sloping, lush Lancashire pastureland. It is this kind of land that I drive through whenever I go out. In what is admittedly a very earthy and yet still perhaps a genuinely philosophical sense, to travel really is more important than to arrive in such surroundings as these.

WEDNESDAY

Just back from the big city for what is now a rare visit to my favourite theatre, the Manchester Exchange, to see Miller's *Death of a Salesman*. Some imaginative and breath-taking staging – Willy dying on stage at the wheel of the enormous, bright red Studebaker which he had owned way back in the good old days of 1928; then the soil in which, only moments previously, he had been crazedly sowing his vegetable seeds for the new season, being swept into a heap and shaped to become the mound over his newly filled grave, while his mourning family enter to place their wreaths upon it. The very speed with which it was all "accomplished" encapsulated one of the deepest meanings of this many-layered play, which is not just about the treachery of the capitalist dream, but about the basic sameness of the human condition whatever the system. For those of us no longer a part of the rat race the play only highlights the more strongly the universal problems of which our leisure makes us more aware – our own purpose and identity, our family relationships, and ultimately our end.

THURSDAY

Younger daughter arrives at 7.30. this morning, straight from work, and after an uncommunicative breakfast staggers off to bed where she'll remain until tea-time. After almost three years in the police she has, I think, taken everything in her stride, except the night shift. Her visits always produce a flurry of extra activity in our now quiet household. If you can only adapt to your children growing up I think you have a fair chance of never really losing them. Though sadly we won't be all at home together this Christmas, my horrific telephone bills at least offer the totally unsentimental consolation that we are still very much communicating.

FRIDAY

Carry out my winter sowing of broad beans. As it's freezing cold outside I don't linger about it, but don't rush either. Making a garden out of a compacted, water-logged, rubble-filled building plot has taught me to take things more steadily, and though it's been immensely satisfying I'll never do it again. I can't really believe that once man (in the form of me) has intervened, the spot should ever revert to its original state. Archaeology, of course, tells us differently, but doesn't really convince when our own puny ego is personally, as it were, involved.

SATURDAY

Today my "gardener" comes to cut and edge the front lawns. Strange how I used to say I'd never buy a house with a large front garden, which I regarded, and still regard, as a waste of precious space. This is probably why I've got somebody else to look after this particular front garden, while I tend my sitting garden and vegetable plot at the rear. The gardener is, of course, a teenager making himself some pocket money, and doing an infinitely better job than I'd get from most so-called gardening firms. He has a healthily *high boredom point* and a mature attitude to work conditions. It *will* be monotonous but the end result makes it worthwhile. He turns up faithfully every week and will tackle any work that's going if the lawns are too wet to be cut. His approach cheers me immensely, as does that of so many of the area's shopkeepers and tradesmen who don't assume that, unless they exact immediate payment, their customers will flee the country or declare themselves bankrupt. I don't think I'll ever live in a big city again.

SUNDAY

To our parish church for the 11 o'clock mass – very different from the same service in our previous parish. There the priests were friars, who have traditionally gone out from their houses into the contemporary world to preach and minister to the people. Here the priests are monks, whose primary function is to pray and say the divine offices. The effect of these two different traditions on the celebration of the mass would surprise those who accept the myth of the Roman monolith. The friars' Christianity is almost, in the best sense of the word, Protestant, with its emphasis on the preaching of the word, always with close reference to the immediate situations of the men and women and children in the congregation. Ultimately it is a Christianity of this world.

Mass in our new parish is by contrast a many-faceted experience. Many parts of the mass are sung or chanted, thus embasizing their poetry and beauty, and opening the listener's heart to their message. At the Elevation, when the priest raises the host and chalice to the people, it is as if time were standing still; we are at one with those countless others who over so many centuries have knelt as we do now.

Mass over, we go outside and are swiftly returned to earth. It is conveniently just 12 o'clock – opening time – and a steady stream of worshippers moves from church to adjacent club for the first one of the day. That is at least one tradition which, thankfully, is common to the parishes of both the friars and the monks.

Bill McPhee

The author was head of the faculty of arts, Sedgley Park College of Education, Manchester.

Oral tobacco campaign dropped

by Olga Wojtas
Scottish Correspondent

The company producing the controversial Skoal Bandit oral tobacco pouches has pulled out of its student recruitment campaign because of adverse media publicity.

Mr John Walter, marketing and promotional director for US Tobacco International, said the company had been seeking to recruit students from a selected 10 campuses to work part-time promoting Skoal Bandit, but had suspended the scheme to avoid putting them under unfair pressure from "the barrage of publicity".

The Health Education Council has written to all student unions, advising them against involvement with Skoal Bandit, which some doctors, including the Government's chief medical officer Dr Donald Acheson, have alleged can cause serious dental problems, and can led to oral cancer.

But Mr Walter said the scientific community was not speaking with one voice, and research had been carried but which found no evidence of the substance being carcinogenic.

"The HEC's letter was vague and in some cases inaccurate, and I've written to them asking them to set the record straight," he said. "We are a responsible company, and I wish that reporting in this country was more balanced."

A number of students have already been working for the company for around £30 a month, offering free samples of the product, but Mr Walter said their work has now ceased.

He stressed that the product is aimed only at smokers over 18. However, the company has approached two universities in Scotland, where many students are only 17.

Mr Walter said any field worker found giving samples to anyone under 18 would be sacked on the spot, and they were instructed not to give samples when there was any doubt.

The president of Dundee University's students' association, Mr Niall Hickey, said a company promoter had told him there was a budget of £1,500 to sponsor events in the university to market Skoal Bandit. Mr Hickey had written to the company asking about the alleged dangers following the HEC's letter, but was told this week that all Scottish commercial activities were being cancelled.

Mr Vince McGlennan, student president at Strathclyde University which was approached this term, said they told the company "to get lost".

"I SUPPOSE WE COULD ONLY EXPECT THE BARE MINIMUM..."

Nudes seek to redress pay balance

Nude models in Cornwall's further education college are feeling the pinch. Along with the county's exam invigilators and pianists, their hourly pay rate lags some 17 per cent behind the national average.

Recruitment problems among art models last year led the South West Council for Further Education to recommend a 52 per cent pay increase to bring them into line with other regions. But Cornwall's education committee decided to stay out in the cold and trimmed the figure to 35 per cent.

This year's proposed increase was 5.6 per cent in line with college lecturers. But following an eloquent plea from county councillor Mr Jon Davey, a retired English teacher from Redruth, Cornwall's further education subcommittee last week agreed a 22.6 per cent rise.

Subject to the full education authority's approval, hourly pay for nude models will rise to £3.68 from £3.00; clothed models will get £2.94 (£2.40) invigilators £2.33 (£1.90); and pianists £3.03 (£2.47).

Mr Davey said this week: "I see no reason at all why if you happen to live in Cornwall you should be paid a different rate for doing a difficult, exacting and tedious job."

The subcommittee also heard that the National Union of Public Employees was seeking improved conditions for these groups.

Lecturers break with Burnham

by David Jobbins

Lecturers' union leaders and local authority employers have agreed to combine pay and conditions of service talks in what has been hailed as an historic break with the Burnham structure.

But the breakaway Association of Polytechnic Teachers warned this week it would take all steps including possible court action to ensure it is not excluded from the discussions.

Both sides have agreed to alter the constitution of the National Joint Council for conditions of service (NJC) to remove the restraints on discussions involving issues related directly to pay which, under the Remuneration of teachers Act, is negotiated in the Burnham further education committee.

Now that conditions and pay are to be discussed together, Burnham may only meet briefly twice in any pay round. The pay claims will be presented formally by the teachers' panel at the opening of the negotiations, and a second session will be needed to register the final agreements. But union leaders are convinced that the real discussions will take place in the NJC.

Agreement to change the NJC's constitution was reached when it met last week, and no objections were raised either by its independent chairman. Sir John Wordie, or by representatives of the Department of Education and Science.

When it was established in 1930 it was hailed as the forerunner of free collective bargaining with the long term aim of including salaries within its scope. Employers' leader Mr John Pearman revived the idea in the last pay round by drawing attention to the disadvantages of separate negotiations, and officials were told to find a way of modifying the constitution.

The move comes at a critical point in the school teachers negotiations, where only the National Union of Teachers is now opposed to bringing negotiations on pay and conditions together.

Mr David Triesman, negotiating secretary of the main union, the National Association of Teachers in Further and Higher Education, said it was a step towards a mature bargaining system capable of operating with a sense of reality, and was a long overdue step.

"What remains is to dispose of the absurdity of the Remuneration of Teachers Act, a charter for Whitehall mandarins to interfere in sensible bargaining," he said.

But the APT, which also chairs the education, fears it may be squeezed out of the talks. Although it has a seat on the Burnham further education committee, it has never sought representation on the NJC, and neither the local authorities nor Natfhe, who control its composition, are likely to concede it.

The APT's national secretary, Dr Tony Pointon, said: "We will take whatever action is necessary to represent our members' interests and those of all lecturers in polytechnics and colleges of higher education. We shall pursue matters in the courts if need be. We shall make sure our voice is heard at every level."

The APT intends to rely on a judgment won by the Professional Association of Teachers when it was excluded from the teachers' panel on the Burnham primary and secondary committee.

Covenant guide withdrawn

Regulations aimed at protecting students who receive money from their parents through covenants were withdrawn by ministers this week only hours before they were due to be discussed by MPs.

The new rules were intended to end doubts over whether covenanted income should be regarded as covering 52 weeks or just the academic year in cases of students applying for supplementary benefit.

They follow a commitment given by the minister for social security, Mr Tony Newton, after thousands of students in the Oxford area were told earlier this year that their covenanted income would be treated by the DHSS as if it was annual income.

Officials said the regulations had been withdrawn because a drafting error meant they did not achieve this aim, and that they would be reintroduced later. In the meantime students whose benefit had been *withheld* would receive extra-statutory payments.

The National Union of Students, which has requested a meeting with Mr Newton, was angry at the withdrawal of the regulations.

Vice president, Ms Vicky Phillips, said: "It shows the incompetence of the DHSS. They have got into a state where they do not know what is going on."

Education 'should unite with industry'

A better balance between accountability to the nation and the individual is within the grasp of the education service. If it lets this slip, the consequences would be serious for both scholarship and industry.

This was the warning issued by Sir James Hamilton, the former Permanent Secretary at the Department of Education and Science, in his presidential address to some 200 delegates at the National Foundation for Educational Research annual conference this week. Sir James focused on accountability in education on both the micro-economic scale and in the broader context of the extent to which the education service is responsible for anticipating and meeting the nation's needs for skilled young people.

The Jarratt committee report on efficiency in universities formed part of the jigsaw puzzle, he said. It was important that the report, which received a frosty and sceptical reception in certain university sectors, should be viewed as a source book of good practice aimed as much as changing attitudes and changing methods rather than a blueprint.

Much of the dismay which greeted Jarratt stemmed from the view that the report was an unnecessarily detailed – and poor – blueprint for efficiency, and that, having been prepared by a group biased towards industry, the report was intent on imposing irrelevant and inappropriate industrial methods on the universities.

"It is a pity that in all the brouhaha about performance indicators and the minutiae of accountability, the final exhortations of the Jarratt report has been so often overlooked – namely that the attitudes of mind of the staff and the will of the institution to achieve the necessary change are crucial".

This was the heart of the message from successful industry to the education service, emphasized Sir James.

ملف من الأرشيف

Role on the dole: Tizzie Short performs in a special production, sponsored by the Inner London Education Authority, by 16 members of the Chelsea and Westminster Adult Institute's unemployed singers' project in front of a specially invited audience of potential employers at County Hall. A previous production led to three singers finding jobs with opera companies.

Women engineering students up 20%

by Jon Turney
Science Correspondent

The number of women engineering undergraduates in British universities rose by nearly 20 per cent last year, according to figures in a new report from the Engineering Council.

The figures, based on unpublished University Grants Committee statistics, show a sharp increase in registration of women on first-year undergraduate engineering and technology courses in 1984, after a couple of years when numbers were static in the wake of the 1981 university cuts.

The rise is the first indication of the fruits of 1984's campaign under the Women into Science and Engineering banner, although Engineering Council officials say the 1985 figures will show if there is a new trend in recruitment.

The proportion of women engineers at university has been rising steadily since the late 1960s, but still stands at only 10.8 per cent of the total.

The figures are given in a new Engineering Council report on career breaks for women chartered and technician engineers. The council urges companies to provide help with training after career breaks to keep talented woman engineers in the profession.

It still wants to see more women drawn into engineering, especially as the total of 18-year-olds falls into the 1990s. Lady Platt, who brought the Equal Opportunities Commission and the council together in the WISE campaign, said it was essential to attract female students to ensure the supply of highly qualified technical staff kept up with demand in the next decade.

And Mr Geoffrey Hall, director of Brighton Polytechnic and chairman of the council's education and training committee, said half the population is still not being recruited effectively.

The new report, from a working party chaired by Mr John Shrigley, director of personnel for Marconi, estimates that there will be 17,000 female engineers and technicians of child-bearing age in Britain by the end of the century. It makes recommendations for employers, institutions, boards, professional institutions, government, and providers of education and training.

The Women's Engineering Society announced this week it has raised more than £200,000 towards its new fellowship scheme for women returners to science and engineering. The society is awarding fellowships to women aged between 27 and 47 to do research or advanced training at university.

Career Breaks for Women, £5, Engineering Council.

Labour plan to free students from parental support

by David Jobbins

A future Labour government should consider phasing out the parental contribution from the system of student financial support, an internal working party chaired by a former Secretary of State for Education recommended this week.

The working party, headed by Lord Glenamara, who as Mr Edward Short 1970, makes two other key proposals.

- The value of the grant should be restored to its real value at 1978/79 at a cost of £110 million.
- Reimbursement of travel costs and other expenditure above a fixed sum should be restored at an estimated £25 million.

Lord Glenamara described the parental contributions system as one of the biggest injustices, with parents of about half Britain's students not making any contribution.

The working party rejected the idea of using legislation to force parents to pay the contribution. Instead it recommends raising the threshold at which parents start to become liable faster than the rise in earnings, to take a larger proportion of families out of the net.

Also, the age of independence for awards purposes should be progressively reduced from its current level of 25 first to 21, then possibly in annual steps of a year, to cost around £300 million a year, but the committee advises a gradual approach.

Labour leaders are unlikely to regard abolition of the parental contribution as a major priority to be pursued in competition with other spending ministries in the event of a Labour government.

But they are likely to adopt Glenamara's call for restoration of the grant's value, and of a system of educational maintenance allowances [illegible] students.

news in brief

Decision on law lecturer put off

Dundee University court has postponed its decision on the position of senior law lecturer David Hogarth who has been struck off the roll of Scottish solicitors for professional misconduct.

Mr Hogarth was found guilty by the Scottish solicitors' discipline tribunal of allowing a diploma student to carry out business under his name with grossly inadequate supervision.

Credit grant

The Leverhulme Trust has awarded a £16,500 research grant to Manchester and Salford universities, the University of Manchester Institute of Science and Technology and Manchester Polytechnic to smooth the path for wholesale in-course credit recognition between the four institutions.

Corrections

In the November 29 issue of *The THES* under the article headed "Polys and colleges defy NAB on science 'switch'" Mr Mike Salmon was quoted as the director of the Chelmer Institute of Higher Education. The Institute is now known as the Essex Institute of Higher Education.

A line was missed in Norman Lindop's article "Validation Revisited" in last week's paper. The second paragraph in the third column should have continued: "to compare public sector institutions today with what they were 20 years ago is to witness the effects which external validation has had. But while external validation has painstakingly and often painfully carried out page-by-page consideration of proposee schemes and courses, by far the most important development has been the growth of expertise in exercising [illegible] academic judgement . . ."

AUT

Association of University Teachers

UNDERFUNDING IN UNIVERSITY RESOURCES AND SALARIES

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IN THE BALLOT FOR DEMONSTRATIVE STRIKE ACTION

Universities have reached a state of crisis over funding and salaries which needs action now.
Your vote in the ballot will help to reinforce the arguments for proper levels of funding.

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They must be returned to the Electoral Reform Society to arrive by 18 December.

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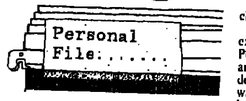
(0673)

From grammar to poly – via Parliament



by Karen Gold

It was not an education issue that brought Christopher Price to widespread public attention at all, but three Lewisham youths, one disturbed and one subnormal, wrongly imprisoned for murder.

The Maxwell Confait case, with its lurid background of a homosexual prostitute's murder, was not promising ground for a would-be MP to make a reputation. Chris Price took it on when canvassing in 1974 for the seat he later won: Lewisham West in South London. The youths, imprisoned on the dubious evidence of confessions, were released two years later, and the police on confessions and police procedure changed.

The move from politics, even as an ex-MP, to be director of Leeds Polytechnic might appear to be another unpromising Price choice. Indeed, when he entered Parliament he was warned off education as a specialist field by the late Lord Boyle, who said it was the graveyard of promising MPs.

But by that time – 1966, as MP for Birmingham Perry Barr – he was already committed to education. He had taught for 10 years – Latin and Greek, mainly in a grammar school – become a newspaper education specialist and was deputy chairman of the Sheffield city education committee.

He was typical of the bright Oxbridge-educated Labour MPs who came into Parliament in the Wilson era. He was parliamentary private secretary (a political dogsbody job) to Secretary of State for Education Tony Crosland before losing his seat in the 1970 election.

In the gap between Parliament and for Lewisham in 1974, he did some more journalism, appeared on television, and taught trainee teachers at North East London Polytechnic. He went back to education as PPS to Fred Mulley to push for comprehensive schools; then to the European Parliament for a year.

His power base was chairmanship of the House of Commons Select Committee on Education, Science and Arts from 1980 to 1983. In the select committee chair, as a Labour chairman of a committee with a Conservative majority, he exuded a Dickensian judiciousness.

The amount of interest the Select Committe showed in higher education – not just in its overall planning but also in biotechnology and Northern Ireland – owed much to him. It also gave him a niche when he lost his Lewisham seat in 1983.

He would almost undoubtedly have been reselected, had he not decided to stay in higher education. He was brought into South Bank Poly with the title of pro-assistant director, and proved distinctly useful in both public relations and biotechnology planning. He would, a colleague there observed, make a much better director of a poly than a deputy director: he doesn't have the administrative expertise; he undoubtedly does have the charisma.

Move to send teachers back to college

New Scottish secondary school teachers should go back to college for a month at the end of their two-year probationary period before becoming fully qualified, a Government working party has recommended.

The working party on secondary postgraduate courses proposes that a return to college should be compulsory before registration with the General Teaching Council for Scotland. But the Secretary of State for Scotland, Mr George Younger, said this was "a radical suggestion which requires more detailed considerations".

Mr Younger is now going to consult interested parties on assessment arrangements for probationary teachers before making any change.

Mr Fred Forrester, organizing secretary of the Educational Institute of Scotland, and a member of the working party, said there was a wide consensus that the "sandwich principle" of college training, school experience and return to college was desirable.

But Mr John Wilson, head of education at Moray House College of Education, said there could be practical difficulties in students from rural areas having to spend four weeks at a college.

The proposals would alter the balance between the college and school, giving colleges more of a say in endorsing a probationer, which until now has been entirely dependent on a headteacher's report to the GTC, he said.

The Scottish secretary has welcomed another of the working party's recommendations, that secondary postgraduate courses should be extended from 32 to 36 weeks, and has asked the colleges of education involved to submit plans for revised and extended courses by 1987/88.

Board defies plan for London Hospital cuts

by Peter Aspden

A call for immediate savings – through redundancies if necessary – by a planning team of the London Hospital Medical College has been turned down by the college's academic board.

The team's report recommended that a number of posts be scrapped and the college stop funding some departments so that it could reduce a budget deficit of more than £500,000 at the end of 1984/85.

But following a protest by the Association of University Teachers that the figures were misleading and inaccurate, the board has now decided to look again at the college's financial position and withdraw the immediate threat to some departments.

The AUT has produced its own paper, claiming the financial forecast of the college's academic development and planning team was over-pessimistic, and there was no need to implement such drastic measures so soon.

The rejected report had called for the disestablishment of posts in anaesthetics, forensic odontology and physiology, and the withdrawal of the college's financial support for the immunology department.

But Mr Malcolm Keight, the AUT London official, said the recommendations were panic measures. "The financial difficulties faced by the college are no more and no less than those presented by the UGC to all university institutions over the coming years," he said.

He also said the report could not be used as a basis for the current discussions between the college and St Bartholomew's Hospital Medical School and Queen Mary College, with a view to developing a new institution for medical education within London University.

Youth policy criticized

The four major councils for youth work in the United Kingdom, representing services for some eight million young people, have called on the Government to formulate a clear policy of co-operation.

The plea was made in a letter to Secretary of State for Education and Science, Sir Keith Joseph. Signatories include the National Council for Voluntary Youth Services, the Council for Wales of Voluntary Youth Services, Standing Conference of Youth Organizations of Northern Ireland and Scottish Standing Conference of Voluntary Youth Organizations.

The councils level the criticism that there appears to be no clear focus for policy concerning young people. Instead they are "at the mercy" of the decisions of a number of arms of government – central and local, and feel of no value to society.

Co-operation between the various youth agencies is limited or non-existant, states the letter, and while the appropriate junior ministers might meet from time to time, these encounters do not lead to co-ordinated planning across a wide spectrum.

"The crisis of and for young people demands well-grounded policy and not a crisis response," writes Mr Francis Cattermole, director of the NCVYS.

The councils urge the Department of Education and Science, together with the other education departments to take the initiative in heading the development of co-operation.

Review of NHS training posts

A new system allowing for joint planning of medical and dental training grade posts in the National Health Service and universities has been announced by the minister for health, Mr Barney Hayhoe.

From now on, a new joint planning advisory committee, representing academic, research and professional interests, will devise national targets for training posts and allocate them as regional quotas, taking account of the manpower plans of regional health authorities and their associated universities.

The committee will be chaired by Professor Bernard Tomlinson, chairman of the Northern Regional Health Authority and honorary emeritus professor of pathology at Newcastle University. It will also include two representatives from the Committee of Vice Chancellors and Principals, and one from the Medical Research Council.

A Department of Health and Social Security report on the new arrangements said it was important to adopt a joint planning approach between the universities and the NHS so as to ensure a proper balance between the numbers of training and career posts.

"It is wasteful and invidious to train doctors and dentists in specialities in excess of the numbers for which there are likely to be permanent career outlets," said the report.

"However, the manpower controls designed for the NHS cannot simply be extended to encompass the university sector. There can be no suggestion that the traditional autonomy of the universities should be jeopardized."

Leeds Polytechnic human movement studies student Menna Samuel shows the style which took her to the World Gymnastic Championships in Montreal, where she was a member of the British team

PARTY LINE

Hard sell of the town hall powermongers

So, Jack Straw tells us he studies the *Financial Times* at breakfast. Well, I get it with lunch, tea and dinner. My wife works on it. Jack's column a fortnight ago now sits proudly on the *FT* noticeboard. Even prestige newspapers like to feel wanted.

A pity then that he only quotes it when it lends weight to his prejudice. His article in *THES* a fortnight ago tried to prove – as he often tries to do – that this Government has "scant regard for democracy". His evidence lies in the new Local Government Bill which seeks to stop councils spending ratepayers' money on political propaganda.

He neglected to mention that this was the one Local Government Bill on which the *Financial Times* congratulated the Government. And why not. Indeed, when Labour councils have spent over £20 million in the last five years attacking Government policies?

No-one denies the right of councillors to have strong political views and to lobby for them. It has always been done. But the old conventions have been overthrown by a new breed of tough professional. Why Jack Straw of all people should lend his authority in support of the myths they perpetuate is quite extraordinary, for he of all people has direct experience of the Liverpool militants. He knows that Derek Hatton does not believe in the same sort of democracy.

Winding up the debate on the second reading of the Bill, Jack claimed that it [illegible] the right to express dissent, the voice of local democracy. But it is the Hattons, Livingstones and Bernie Grants who cavalierly use ratepayers' money for propaganda who are in fact striking at the heart of local democracy.

The spending is all one-sided. It is put into the newspapers that support their views. It is not used for any Opposition arguments. Indeed the whole thrust of their rule is to use the power of incumbency to perpetuate their power – and naturally to stifle dissent. Council officers are increasingly political appointments. Blatantly so in some councils, less so but more insidiously in councils such as Leeds.

The association representing local government chief officers has admitted to the Widdicombe committee that "a number of officers are now closely associated with the views of one political party and are occasionally appointed to posts because of political affiliations rather than their professional abilities".

A less obvious trick is to manipulate agendas, so that officers' submissions which are unattractive to the party caucus never see the light of day, let alone the scrutiny of the opposition. So when is a right abused?

Despite Jack Straw's absurd claims the Local Government Bill does nothing to stop councils' assistance to voluntary groups such as the Scouts, nothing to restrict its information to the public on things like housing benefits or welfare.

The Bill will not even stop the GLC's "working for you" campaign, on which last year they spent – believe it or not – £6.8 million. The reason is that section 142 of the 1970 Local Government Act stays unchanged except that advertising has to be directly incidental to local government functions. Moreover, section 111, which is the broad power entitling councils to use publicity in any way "calculated to facilitate, or is conducive or incidental to the discharge of their functions" is retained intact.

So extreme and ridiculous charges only benefit the nutters, when in fact it is doubtful whether the Government has done enough. When recent court cases stopped Leeds advertising its political campaigns under Section 142, they retrospectively gave themselves permission to do it under 137 so why should they not try to use section 111?

Anyway, I suspect that in handling this Labour's real problem is not in its subservience to the hard left but the fact that it takes everything so totally seriously. Even its intellectuals like Jack Straw seem to believe the absurd charges regarding the undermining of democracy.

But why should this government stifle men like Bernie Grant? He has spent nearly £500,000 on political propaganda which could have been spent improving the Broadwater Farm Estate. But such bogeymen are rather useful politically. There is no broad public sympathy for such fools.

That is why ultimately the public tend to turn to the Tories and continue to view Labour with scepticism.

Keith Hampson

The author is Conservative MP for Leeds North-West.

ANTITHESIS

Archie forced into corner

Edinburgh University's rector, BBC sports commentator Archie MacPherson, is about to be caught offside. Edinburgh students' annual general meeting passed a motion by 324 votes to 30 condemning Glasgow Rangers football club for its sectarian policy in not signing Catholic players, and has mandated student president Mike Devlin to seek Archie's signature on a letter to be circulated to all Scottish league club chairmen with a petition demanding a change in Rangers' policy.

Mr Devlin admitted that Archie might find this a trifle embarrassing, but that if he did not sign there was more likely to be a motion of regret at the next general meeting than calls for his resignation.

Grant of the week for work in electronic mailing of research findings goes to Dr Niall Teskey of Brighton Polytechnic: £10,000 for investigation of "retrieving grey literature in an invisible college". There must be plenty of it about.

Looking ahead

Word is that only one of the Science and Engineering Research Council's two oldest astronomy establishments – the Royal Greenwich and Royal Edinburgh observatories – will survive a SERC review of ground-based astronomy. Formally all options are still open, with a discussion paper due next month.

Simple prudence, presumably, just had a planning application granted for extensive new building at its hilltop site above the Scottish capital.

Next time animal liberationists do some fund-raising, they should buy a new address book. Their latest target is the Institute of Psychiatry in London whose staff – including Maudsley Hospital colleagues who do no laboratory work – have been subject to abuse and paint attacks on their houses. Among those whose homes received the involuntary decoration was the institute's dean – or he would have done, had he not moved house. The present occupiers were not amused.

Wagnerian saga

A final note to the Leeds Polytechnic directorship saga. Even after bringing the selection process forward three weeks and rushing the candidates north at short notice to avoid losing any to other directorial posts, one still slipped through the net. Leslie Wagner, deputy secretary of the National Advisory Body, withdrew from the race the night before the interviews, saying he rather thought he preferred his present job.

An irate caller to the Polytechnic Central Admissions System head office in Cheltenham spent at least five minutes on the phone telling PCAS staff exactly what she thought of their £5 administration charge. She then rang off. She was calling, at peak time, from California.

Black mischief

Hasty second thoughts by the Association of Polytechnic Teachers, which has been sending out errata slips for a press release it issued on the future of South West London College, 70 per cent of whose students are from ethnic minorities.

The college staff, said the APT release, were frightened for their jobs through black propaganda. Or maybe not. "Our original press release contained an error," the subsequent note to journalists explains. "The word 'black' should not have appeared."

Mature students face age bar

by Felicity Jones

Mature students are being heavily discriminated against when it comes to job appointments within government departments and private industry.

The annual conference of the Mature Students Union held at Humberside College of Higher Education heard how a mini-survey of advertisements in the national press revealed that half of public appointments were barred to applicants aged over 40, several specified a lower age threshold and one graduate job refused to interview anyone over age 26.

"Our main complaint is that the Government is encouraging mature students and is prepared to pay the grant but we cannot find work afterwards," an MSU representative said. "If the Government puts an age bar on posts within its departments then industry tends to follow suit."

The conference was told that the Civil Service, for example, sets an age limit of 32 for administrative grade appointments and 45 for executive grades.

The students plan to press the issue at the National Union of Students conference this weekend and to write to the Civil Service Commission to complain.

Meanwhile, mature students face an effective decrease in their income in the next year as the Department of Health and Social Security has sent a letter to all its officers pointing out that the grant of £685 covers the full 52 weeks of the year.

In the past, many local authorities have treated the mature student grant like the ordinary grant and have even written on the cheque that the money covers 30 weeks.

Students have been able to claim DHSS payments to see them through the holidays even though officially the mature grant was always meant to cover 52 weeks.

"Our grant has always looked more but with a family of four children to support spread over the full year it is not so large. The new ruling will cause more hardship," said the union representative, Mr Tom Todd, who is studying for an MA at Aberystwyth University and has a family.

"Over the summer I was only receiving £8.90 a week because my DHSS office were already enforcing the ruling."

The MSU also wants the anomaly rectified so that students can claim for illegitimate as well as legitimate children through the dependant's grant. At the moment, parents of illegitimate children have to apply through the DHSS hardship fund.

Voice in the wilderness is silenced

Higher education lost one of its best-known figures this week with the death of the poet Philip Larkin. Brian Morton gives an appreciation of his work.

Philip Larkin, for all his Movement credentials, was a solitary figure in English poetry, isolated by his painstaking reticence and also geographically. He was university librarian at Hull since the 1960s, far away from the obvious literary centres. His death this week, after thoracic surgery earlier in the year, imposes a final silence on a poet who had claimed, on being asked precisely the opposite question, that poetry had given *him* up.

His output, by modern standards and allowing that his first volume appeared in 1945, was small. The first book, *The North Ship*, was an amalgam of Auden and Yeats, but promisingly accomplished. Larkin's reputation established itself with *The Less Deceived* (1955) and centrally with *The Whitsun Weddings*, published in 1964 at the beginning of the permissive era he professed – self-consciously – to hate. His most recent volume was *The High Windows*, published in 1974.

Larkin was twice – on John Betjeman's death and, earlier, on Cecil Day Lewis's – mooted for the Poet Laureateship. It was never clear whether he had been offered the post or whether his slackening output did indeed rule him out. The appearance of a full-page appreciation of Betjeman by Larkin on the laureate's death last year appeared to suggest he was the natural successor.

And, indeed, he was. Larkin was a genuinely popular poet (his sales were more than respectable) and had turned his face firmly against most of Modernism. One of his most significant pieces of work was the *Oxford Book of Twentieth Century Verse*, published in 1973, which offered a clear alternative to the orthodox Pound-and-Eliot view of modern verse. Along with Donald Davie, Larkin helped restore the reputation and example of Thomas Hardy (the poetic Hardy, rather than the fatalistic novelist).

It was Davie who provided the subtext for one of Larkin's most justly famous poems "On Churchgoing" when he wrote that, in the latter half of the century, "the poet's churches are empty", and that "dislocation of syntax" was to blame. Larkin was a Romantic only in the dubious and hackneyed sense that he sought a return to what Davie called a "purity of diction" in poetry.

He was emphatically not a romantic in his hostility to purely emotional criteria in art. His jazz columns in the *Daily Telegraph* – reprinted as *All What Jazz* – nailed his colours to the mast; his poem to Sidney Bechet saluted the "natural noise of good" [illegible] and [illegible] "scored pity".

His subject was the post-war England of managed shortages, furtive pleasures, accelerating consumerism. From both the Christian and literary past he took the idea of love and weighed it as a counterpoise to the new age. His most potent images of this were to be found in his best book *The Whitsun Weddings* and the working credo of "Faith Healing" and of Larkin's work:

In everyone there sleeps
A sense of life lived according to love.

Business boom in the park

by Carolyn Dempster

The rapidly expanding British branch of the European Business School is to relocate its headquarters in Regent's Park where a unique centre for international business education, training and research is being planned at Regent's College.

The move, announced by London EBS director Mr Peter Coen, will take place next summer when the EBS joins a new federation of institutions for international education and training at the college.

Among the facilities planned for the new building will be computing and language learning centres, a video studio, syndicate work rooms and a specialist international business library and database.

With its sister schools in France and Germany, the London EBS also plans to launch a fund-raising foundation to assist the development of independent educational initiatives geared at increasing international competitiveness. As a private institution, the EBS is only rarely supported through education grants, and the foundation is seen as a means of establishing bursary schemes.

International competitiveness was highlighted as the key to Britain's future growth and prosperity by Mr Coen in his speech to the 1985 EBS graduates. The country's biggest trading partners were firmly located in the European Economic Community, and the increasing interdependence in international trade meant that performance in these arenas would determine Britain's ability to maintain a civilized and productive culture, he said.

Managerial competence was paramount if British directors, managers and export and sales managers were to compete with their German, American and Japanese counterparts and this required communication skills in foreign languages as well as a solid foundation in business studies.

Mr Peter Brooke, minister of state at the Treasury and formerly responsible for the higher education brief, said the Government was aware of the important role which private institutions were playing. This would constitute an important factor in the debate over whether to privatize university-linked business schools, spurred by Professors Brian Griffiths and Hugh Murray in their document *Whose Business?*.

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UNION VIEW

Sir Keith's new twist to the saga

On Tuesday, November 26 the Secretary of State appeared before the House of Commons Select Committee on Education, Science and the Arts. Answering questions about potential teacher shortages, his overall stance was one of reassurance.

On the same day, Sir Keith added yet another twist to the saga of national planning of initial teacher training. This is the first occasion the National Advisory Body has been given overall responsibility for advising on ITT allocations. It is turning into a planner's nightmare, largely because the Secretary of State keeps repeatedly placing the NAB in an impossible position.

His original delay in announcing his views on the number of training places and their breakdown as between public and university sectors meant the NAB was reviewing allocations against a much tighter timetable than had been envisaged. Despite the need to sharply increase primary places, Sir Keith still demanded further rationalization of institutional provision. Because NAB did not put forward enough institutions that should cease training, Sir Keith effectively rejected the committee's advice.

The NAB then agreed to look again at the planning figures but, not unreasonably, suggested that this should be done in the context of overall planning for 1987 onwards. This doesn't only suit the NAB, it also helps institutions who are understandably reluctant to commit themselves to several years of increasing numbers for teacher education when it may well turn out they then have to cut other courses. Sir Keith now says it must all be done by the beginning of May or he will hand the responsibility back to the Department of Education and Science.

If the aim of the exercise is to create viable courses to ensure quality training for intending teachers, then what institutions need is a period of stability and certainty about their programmes and targets. What they are offered is a constantly changing set of demands and for some, at least, an almost permanent threat to their continued existence.

Yet it is these institutions who actually have the task of attracting increased numbers of young people to enter and train for the profession. The age cohort from which such students have traditionally been drawn is dropping; the qualifications demanded of them are rising, and the profession itself, as a result of the long running dispute over teachers' pay, is repeatedly headline news, underlining many of the more unattractive features of teaching as a career.

Quite apart from the traditional shortage areas such as maths, some sciences, and craft, design and technology, the overall level of student applications is dropping and patterns of under-recruitment are beginning to appear across a wide spread of curriculum areas. Yet we are only at the beginning of the downturn of the age cohort and we still have no resolution to the pay dispute.

Sir Keith's statutory responsibilities extend to ensuring an adequate supply of trained teachers. Interventionist in many spheres, in this he seems curiously tentative; he is quite simply failing the profession.

Jean Bocock

The author is the assistant secretary for higher education at the National Association of Teachers in Further and Higher Education.

Meacher stresses role of social research

by Karen Gold

The potential contribution of social research to government in this country is greatly underestimated, Mr Michael Meacher MP told the annual conference of the Social Research Association this week.

This was due, he said, to a combination of a lack of government experience among researchers, lack of encouragement from universities and mixed motives in commissioning research by politicians and civil servants.

Mr Meacher, a former lecturer in social administration at York University and the London School of Economics and Labour Party spokesman on health and social security, said social science had influenced government policy through the provision of data in demography and penal policy, for example.

"One assumes that government is motivated by a desire for knowledge as a guide to policy," he said. "In fact I sometimes suspect that government, in so far as they commission research, do it from exactly opposite motives: to legitimate decisions which have already been taken in order to give themselves some trappings of authority."

Research could also be used as a delaying mechanism: to put off short-term political pressures by buying time and hoping once the research was done the problem would have gone away, he said. Or it could be used to generate greater and greater amounts of information as a substitute for action.

Politicians in Britain, unlike in America, were often hostile to research, he said. MPs had no budget for researchers and few did research. Civil servants were "stony and infertile ground" for social research: new developments for social research had to be fitted into the status quo, so they had a general hostility to change.

But researchers could do more to promote their work in government. They should display results including costings and implications, as was customary in Whitehall, he said. They should seek assurances at the outset about the framework for their research and its predicted implementation.

They should also seek contractual assurances that ministers would at least see an abstract of the results of their work, rather than a civil servant's account of it, and should seek to present their findings personally to the Whitehall interdepartmental committees which would implement them.

The universities had been pathetically slow in expanding and developing the study of public policy, and were reluctant to let their academics spend more than a year two seconded to government departments, he said. But more social researchers should spend time in government, so they know how it worked, even though the government minimum period for useful secondment was nearer four or five years.

Social research was not always directed at policymakers, Mr Meacher said. He listed four areas within his own brief where research was needed: in an economic model to calculate a new tax and benefits system; in ideas for reducing waiting lists in the National Health Service; in deciding priorities for the increased health spending promised by the Labour Party if elected, and in costing and planning community care in personal social services.

"I believe passionately in social research" he said. "I believe if it hasn't been as effective as it could have been, it is because of these problems. I hope the next Labour government is going to be influenced by the SRA and similar organizations to a much greater extent than previous Labour governments."

Columbian student Diana Vargas contemplates her menu for the week: water only. A student of English at St Clare's College, Oxford, she hopes to raise £500 from her seven-day fast for the victims of the volcano disaster in her country.

Ulster plea fails to ward off axe

Northern Ireland's two universities cannot expect to be protected from the reduction of resources planned for institutions in Great Britain, Mr Nicholas Scott, parliamentary under secretary of state with responsibility for education, warned union representatives last week.

Mr Scott was addressing a six-strong delegation of the Association of University Teachers from both the University of Ulster and Queen's, who had expressly requested the meeting to press the point that many of the Green Paper's plans for contraction simply did not apply in Ireland.

The chief argument pivoted on the Green Paper's estimate of numbers entering higher education during the [illegible] would provide [illegible] contraction when its student numbers were increasing.

Even the Department of Education in Northern Ireland now conceded that the decline predicted was not going to be nearly as marked as had at first been thought. And DENI's calculations had reckoned without the growing trend for both mature and unemployed students to take part-time higher education courses.

It was also pointed out that fewer places in universities in Great Britain could be a factor in increasing local demand. The percentage of Ulster school leavers who now go to England or Scotland, would be looking for places to Queen's and the University of Ulster.

The minister was reminded that plans for the future of higher education in Ireland into the 1990s had already produced the merged University of Ulster. That merger still necessitated substantial additional costs and if those were not going to be met, many of its most valuable effects would be rendered fallow.

The province's manufacturing base was extremely narrow, with agriculture and tourism the major businesses. This meant that the two universities were not on a par with institutions elsewhere, especially as the current political climate deterred firms from investing in research in Ulster.

[illegible] analysis required appropriate funding.

Mr Scott undertook to plead Northern Ireland's special circumstances in so far as that was possible. But at the same time, universities could not be exempt from the Government's drive to reduce public spending.

The government, he said, was aware of the contribution made by both the universities to the economic and social life of the province. This had been acknowledged by the Northern Ireland working party of the UGC who would consider the regional factors when advising on funding for the two universities, which presently get a recurrent grant of about £85 million. But Ulster, as part of the UK, would still have to shoulder its share of scheduled cuts.

Archaeologists' South Africa ban comes under attack

by Jon Turney
Science Correspondent

The outgoing president of the Royal Society, Sir Andrew Huxley, has launched a strong attack on the ban on South African attendance at the World Archaeological Congress in Southampton next September.

In his anniversary address to the society last Saturday, Sir Andrew said the ban, imposed by the congress organizing committee, almost made him despair.

He claimed that exclusion of participants from a particular country "will probably mean that no international scientific congresses can be held in Britain in the foreseeable future".

It was fundamental that a gathering claiming to be a world congress should be open to bona fide scholars irrespective of nationality or other political considerations. Members of the International Council of Scientific Unions would refuse any invitation to host a conference from a country unable to guarantee this, he said.

He recognized that the organizers of the archaeological congress had come under pressure from Southampton City Council, the university students' union and the local branch of the Association of University Teachers, and called on all of them to reconsider.

Sir Andrew said it was ironic that most of those who would be excluded were opponents of apartheid. Several were from the multi-racial university of Witwatersrand, and others were only temporarily resident in South Africa. "These people are now being stabbed in the back by groups in Southampton who have the good fortune to live in a country where they are free to express themselves as they wish, even those who are academics engaged in sabotaging the learned activities of their colleagues."

New degree tailored to industry

The University of Manchester Institute of Science and Technology and Manchester Polytechnic have joined forces to set up a degree course in clothing engineering, which they claim to be the first of its kind in the world.

Teaching for the course, which already has the backing of several clothing and textile firms, will take place at both institutions and will lead to a university BSc degree.

The course will be divided into five basic areas, comprising science and engineering, clothing materials, garment construction, garment manufacture and management and design subjects.

The director of Manchester Polytechnic, Mr Ken Green, said the new initiative was a model of cooperation between higher education institutions, and was only the first of similar ventures likely to take place in the next few years.

The principal of the UMIST, Professor Harold Hankins added that the two establishments had complementary strengths in the field.

UMIST runs three undergraduate courses in textiles, and has special research interests in the structures of fibres and computer aided textile design. The polytechnic's department of design and technology has long-standing research and consultancy links with the clothing industry.

Problem of more work, less cash

Voluntary organizations are playing an increasing role in the education of adults but with fewer resources, a working paper from the Unit for the Development of Adult Continuing Education has found.

The report is based on a pilot survey and a consultative seminar held earlier this year at Denman College in Oxfordshire.

The survey, carried out by Dr Veronica McGivney, found that the voluntary bodies are caught in a trap. "They are expected to fill the ever-widening gaps in public provision particularly the neediest members of society but they are simultaneously expected to become self-financing", she says.

One director of a voluntary centre providing educational services for the Asian community said there was a steady increase in referrals from the local authority while the centre remained in cramped premises with the same number of paid staff as nine years ago.

Most voluntary groups want core funding from the statutory bodies with guidelines on how much they can raise without jeopardizing that core money, said the report.

A UDACE development group, chaired by Barbara Saunders, is preparing a policy statement on the reasons for encouraging voluntarism in the education of adults.

overseas news

Academics wary of ministry purge

At least 40 Polish university rectors, pro-rectors and deans lost their posts last week in what a spokesman for the Ministry of Science and Higher Education called a "review of academic personnel" prompted by a revision of the Higher Education Act.

When the amendments to the Act went before the Sejm (parliament), last July, the minister of science and higher education, Dr Benon Miskiewicz, assured the academic community that the changes would not presage a major academic purge. Certainly the sacked officials will still be able to continue as university lecturers – and several have expressed their intention to do so, for as long as possible.

But, according to recent reports in the Solidarity underground press, the Minister is already trying to pressurize the university authorities into carrying out "review" of teaching staff.

The universities have so far opposed such a review, on the grounds that the minister's demand contravenes even the reformed Higher Education Act. But his new appointees as rectors may well prove more compliant, while last week's purge, the minister may hope, will make those who have survived in office more willing to carry out ministerial demands.

Since October 1984, when the first confidential draft of the proposed amendments was leaked to the underground press, Polish academics have feared that the changes, which strengthen government control over the universities and higher colleges, would herald a major purge. Not surprisingly, it has been universities like Wroclaw and Gdansk where dissent was strongest, that have been hardest hit.

[illegible] University, Dr Karol Taylor, who last month spoke at the graveside of Marcin Antonowicz, the first-year chemistry student who died "after falling out of a police van". Another champion of his students hit by the purge is Dr Wladyslaw Findeisen, rector of Warsaw Polytechnic, who last autumn defied the minister's instruction to hunt out and discipline the students who had marched complete with Polytechnic banner in the funeral procession of Fr Jerzy Popieluszko, the murdererd Solidarity priest.

Poznan University seems particularly badly affected. This is the university of which Miskiewicz was rector until promoted to the ministry in the early days of martial law. (He is, appropriately, a military historian.)

In May, 1984, Poznan was one of the four higher education institutions where the rectors elected under the democratic procedures established in the Solidarity era were refused official confirmation.

At Warsaw University, the electoral college was suspended for six months – Poznan, however, agreed to relinquish its original choice of Dr Jerzy Fedorowski, and elected, at a second round of voting, a less controversial candidate, Professor Franciszek Kaczmarek. In spite of this compromise, Professor Kaczmarek, his four pro-rectors and seven of his eight deans have reportedly been replaced.

Certainly, Poznan has had more than its share of dissent – last year, a sociology professor, Leszek Nowak, was suspended and then dismissed on political grounds; and earlier this year, a party official from the university reported to General Jaruzelski that the party was now "underground" in the university, implying that dissent was in control.

Early in November, there were already reports in the Solidarity underground press that massive changes were on their way in Poznan, and that the new rector would be Dr Jacek Fisiak, a party hard-liner and personal friend of Miskiewicz. It was still hoped, however, that the minister [illegible] Institute of Nuclear Research was purged in order to serve as a lesson for other research institutes which, in the opinion of the authorities, still harboured pro-Solidarity elements.

The scope of last week's dismissals took almost all Polish academics by surprise, and as one Warsaw lecturer put it, "this is almost certainly only the beginning."

Mr Denis Healey, the Shadow Foreign Secretary (centre), prepares to cut a symbolic birthday cake to mark the 10th anniversary of the signing of the Helsinki agreement. The co-chairs of the Student and Academic Campaign for Soviet Jewry, Mr Harry Rich (left) and Mr Harvey Bratt (right) look on

East Germans pay tribute to Einstein's university

from Barbara von Ow
MUNICH

Amid much pomp and publicity, East Germany is celebrating the 175th anniversary of Humboldt University in East Berlin – where both Marx and Engels were once students.

At a grand jubilee celebration attended by high ranking party officials, diplomats, Nicaraguan culture minister Ernesto Cardenal and a Soviet astronaut, tribute was paid to the academic achievements of the university. Party leader Erich Honecker, in a special message, praised the university as a "true people's university" which trained young people in the "scientific understanding of the working class".

The university, founded in 1810 by King Friedrich Wilhelm III of Prussia, was once called Friedrich-Wilhelm University. As such it produced 27 Nobel prize winners, including Einstein and Max Planck. Destroyed during the war, it was reopened in 1946 and renamed after the famous Humboldt brothers in 1949.

Addressing the jubilee audience, the director of the university, Professor Helmut Klein, said the university was committed to the "progressive tradition" of educational reformer Wilhelm von Humboldt. Humboldt's idea of a unified concept of teaching and research was the basis of today's higher education system in East Germany, Professor Klein noted.

He did not refer, however, to Humboldt's much propagated concept of autonomy for all universities and independence for research. Professor Klein, who is also an SED delegate in the People's Chamber and a party district official, said the university had produced more than 100,000 qualified graduates who were "committed to socialism".

Currently some 12,000 students and 5,000 corresponding students are studying at Humboldt University, including nearly 1,000 young people from more than 70 countries.

Colleges fear dual threat from AIDS

from William Norris
WASHINGTON

American higher education is bracing itself for the legal battles which may ensue when acquired immune deficiency syndrome (AIDS) begins to [illegible] A [illegible] memorandum prepared for the American Council on Education warns that colleges could face liability suits from those who contract the disease and discrimination complaints filed by AIDS sufferers if colleges take restrictive action against them.

Thus far the controversy over AIDS in the American education system has been confined to the elementary schools, with a number of well-publicized cases in which parents have gone to law. But now that blood for transfusions is being screened for the virus, and because most children born with the disease die within two years, it is thought likely that the AIDS problem in schools is likely to diminish.

Universities are a different story, with students who are sexually active or intravenous drug users who are likely to catch the disease and spread it. AIDS is usually transmitted by sexual intercourse, especially between males, or by needles shared among drug users.

Legally, the colleges are being advised that they are unlikely to be held liable when one student catches AIDS from another, provided that they have acted conscientiously "on the basis of the best currently available medical information". They do, however, bear a legal responsibility to protect students from unreasonable risks.

Colleges who allow students with the virus to stay in school are being advised to stave off liability by making their policy known to the school community. It is legally risky for them to publicize the names of AIDS carriers, but they could require the students to inform their room-mates. And if they become aware that, despite counselling, a student is engaging in activity which could transmit AIDS, they should consider "prompt intervention".

But there's the rub. "Prompt intervention," presumably means dismissal, and under the 1973 Rehabilitation Act colleges which dismiss students with the virus can be sued. The Act prohibits discrimination against the handicapped in programmes or activities that receive federal funds. And "handicap" is very broadly defined.

The best advice the lawyers can offer is that universities should make decisions "on a case-by-case basis".

'Not guilty' of abusing loans

Infuriated by official reports that they are weighing on their loans, and fearful that these are paving the way for cuts in federal support, the students of America are taking their war to Washington. Nearly a hundred student leaders from across the country came to Capitol Hill last week to lobby congressmen on their complaints and needs.

"Students have come to the bill with facts," said Melvin Lowe, chairman of the City University of New York student senate, at a Washington press conference. "Students are not defaulting on their loans." He produced statistics to support his claim that the default rate was actually falling – from 10.2 to 9.1 per cent.

Jim Schmidt, chairman of the Minnesota State Student Association, said that reports of financial aid abuse had been orchestrated by the Reagan administration in an attempt to cut student aid. "I think it is all part of a smokescreen coming out of the Department of Education," he added.

Exit visa plight of Soviet Jews

Campaigners took advantage of the 10th anniversary of the signing of the Helsinki Agreement last week to bring the plight of Jewish students, young people and academics back into the public eye.

In Britain, student union officers from all over the country lobbied MPs and held a symbolic birthday party in the House of Commons to mark the anniversary. Unions sent birthday cards signed by hundreds of their members expressing concern about the treatment of their colleagues in the Soviet Union.

To coincide with the event, the National Union of Students published a report with a foreword by Mr Peter Archer, deputy chairman of the Conservative Party, on the difficulties facing young Jews in the Soviet Union. It found a "systematic, centrally dictated and inspired policy of discrimination" against Jewish students, whose numbers halved during the 1970s.

● A 24-year-old former physics student of Moscow University Mr Karen Khachaturyan, was named last week as the first recipient of the new Victor Hugo bursary, established by the Paris-based *Comité des Professions Médicales en Saveur des Juifs d'URSS*, an organization which has several Nobel Laureates among its members and patrons.

The award was announced last week, at a "post-summit" briefing meeting at the Paris Palais de Congrès, on the current situation of Jewish academic *refusniks*, persons in the scholarly professions who have been refused an emigration visa on the grounds that they allegedly possess state secrets, but who are then not allowed to continue their professional activity.

In Mr Khachaturyan's case, he was expelled from the university physics deparment for "conduct unbecoming a Soviet student", that is, for having filed an application to emigrate to Israel together with his parents.

'Cult of excellence' the key to students' advance

by Geoffrey Parkins

Brigadier-General Lee Hsien Loong, who is prime minister Lee Kuan Yew's son and Singapore's minister of state for defence, trade and industry, told students at the National University of Singapore (NUS) recently that it was crucial that the "rewarding of excellence" and the "upholding of meritocracy" became widely accepted norms in the 1990s, if Singapore was to become a "society of excellence".

Speaking at a NUS forum organized by the university's Democratic Socialist Club, Brig Gen Lee laid stress on the need for incentives to encourage young people to perform to the full limit of their potential, and on providing equal opportunities for discovering and developing talented young people.

This, he said, was not just a matter of adequate remuneration and rewards, but involved developing in society, a "new consensus" with a whole set of expectations, attitudes and shared values towards achievement. It would place high value on those who are "brilliant" and those who "give of their very best".

If these values are to provide a reliable foundation for a wide range of future policies, he said, "their legitimacy must be reaffirmed".

Brig Gen Lee emphasized the need for developing a commitment to serve society from the talented. Equal opportunities, he said, would provide fairness and minimize wastage of talent.

The degree of commitment to serve society required from the most able was of great importance, he said, for whilst an individual's personal aspirations were always an important factor in the pursuit of excellence, the country's brightest students had not had vast resources invested in them simply for them to "do their own thing". Singapore would not be what it is today if the older generation had neglected their obligations to society in this way.

However, while recognizing that talent had to be mobilized for the good of all, Brig Gen Lee said there was always a temptation to settle for "uniform mediocrity" instead of "excellence". This temptation, however, must be resisted or the country would suffer in the long run.

In the last two years or so, it has become increasingly apparent, particularly in view of public rejection of the government's "super-race" policy and the fall in votes for Mr Lee Kuan Yew's Peoples Action Party in the last election of late 1984, that the government's policies are continuing to lose popularity, particularly among young people.

Brig Gen Lee's views may be taken as a clear indication of the prime minister's determination to reverse the tide and strengthen the meritocratic ideology in Singapore's younger generation.

overseas news

French rightist students funded by US

from David Dickson

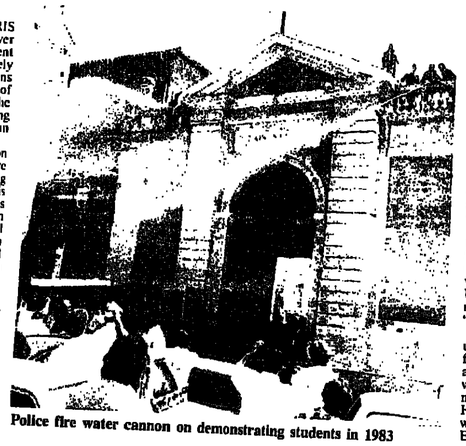
PARIS

A storm has broken out in Paris over revelations that a right wing student movement which has been actively engaged in several major campaigns against the educational policies of France's socialist government over the past three years has been receiving substantial funds from the Reagan administration.

The National Inter-university Union (UNI) was set up in 1969 as a dire response to activies of the left-wing movements of the period, and is known to have had a number of links with a semi-clandestine organization set up by General de Gaulle to quell internal discontent – the Civic Action Service (SAC) – which was abolished by President Francois Mitterrand in 1982.

In the spring and summer of 1983, students belonging to UNI led some of the more violent demonstration in the streets of Paris against the reforms of the higher education system then being debated in the National Assembly, which were passed into law at the end of the year. They also took an active part in subsequent mass protests against the government's plans – subsequently abandoned – to merge private schools into the public sector.

Last week, the Paris newspaper *Liberation* revealed that UNI had been receiving funding from the National Endowment for Democracy, a Washington-based organization set up to finance anti-communist groups throughout the world, which received annual funding of $18 million from Congress through the US State Department.



Police fire water cannon on demonstrating students in 1983

The money was distributed on behalf of the NED by the Free Trade Union Institute, an organization which is run by the main US trade union body, the American Federation of Labor/Congress of Industrial Organisations AFL/CIO. In particular, documents published by the newspaper revealed that the student group was given $575,000 between April 1984 and April 1985 towards what the FTUI described as its "education and publications programme". One of the movement's major activities has been distributing leaflets and posters attacking the government and its educational policies.

UNI officials in Paris refused to comment on the allegations made in the newspaper article. However Carl Gershum, the president of the NED, confirmed in Washington that the payments described had in fact been made, and that most of the money provided to the UNI had been spent.

Gersham also said that he had ordered an investigation into the alleged links between the student movement and SAC, which he said that he was unaware of. The UNI has itself long denied that such links exist, despite evidence from former SAC activists that the two groups have worked closely together.

For example, a commission set up by the government in 1982 to investigate SAC, suspected of waging several undercover campaigns against left-wing groups, stated in its report that UNI was "originally a satellite movement of SAC", which has supported "its constitution and its creation".

UNI is a well-known group on university campuses in France, with a following among both students and academics. In 1983, for example, it won two seats in a national ballot for members of the National Council for Higher Education and Research, which advises the Ministry of National Education on policy issues.

At the same time, the organization has not hidden its desire to play a broader political role. Its president, Jacques Rougeot, now a lecturer in the University of Paris, has said that "we have never considered the university to be an entity in itself, with its own interests, but as part of a coherent whole. To act in the university context is therefore also to act on its environment".

Sniffing out the 'liberals'

from William Norris

WASHINGTON

Accuracy in Academia, the right-wing snoop group which is pledged to expose "liberal bias" in the university classrooms of America, has issued its first newsletter. On the complaint of one student, it condemns a professor at Arizona State University for lecturing about "the evils of the nuclear age", when he should have been teaching political science.

It may seem a small beginning, but the movement's founder, Reed Irvine, is advising readers to save the report because he believes it will become a collector's item. He may be right. Considering that it has a professional staff of one, and a budget of only $50,000 to cover alleged academic subversion over the entire United States, Accuracy in Academia has attracted an enormous amount of attention from newspapers and television.

This is a shade ironic, because Mr Reed's other occupation is to run an organization called Accuracy in Media, which regularly attacks those on whom he is now depending to publicize his crusade.

Some academics are certainly taking him seriously. The presidents and executive directors of nine higher education associations have just issued a joint letter condemning Mr Reed's activities as a threat to academic freedom.

"The call is for Accuracy in Academia, but the goal of AIA is conformity with their particular views," says the statement. "It is therefore clearly inimical to the princi- [illegible] views by all

Some faculty members have gone further, and compared the new organization's activities to the witch hunts conducted by the late Senator Joseph McCarthy in the 1950s. The Association of American University Professors' committee on academic freedom and tenure has predicted that "the proposed programme of Accuracy in Academia, if undertaken and accepted seriously, will lead toward the deadening of discourse and the stultification of learning. It is not to society's good."

Joseph F. Murphy, chancellor of the City University of New York, told an AAUP conference last week that Mr Irvine's methods included "the recruitment of students as a corps of thought police, the development of a private bureau of investigation, the exposure of private individuals to public condemnation, and the announcement and promulgation of some self-defined concept of acceptable truth".

Academics, said Mr Murphy, must denounce all attempts to restrict the legitimacy of intellectual freedom. "We believe in the proliferation of ideas. We believe that when the dominant ideology is subjected to the test of competing ideas it will emerge stronger, more resilient, more valid than before, or it will be transformed by the intellectual force of contrary dogma."

Mr Irvine is unlikely to be worried by such lofty criticism. He will be more concerned by the recent action of the American University Chapter of Young Republicans, good right-wingers to a man, who have just voted to have nothing to do with Accuracy in Academia.

Colleges to spearhead equality drive

from Geoff Maslen

MELBOURNE

The Australian government is to phase in affirmative action programmes throughout the community, with higher education institutions leading the way.

The government announced last month that it intended to introduce legislation which would require institutions and private companies to develop targets designed to employ more women, especially in senior and management positions.

Although the legislation will not set quotas for the employment of women, institutions and companies will have to prove they are working towards employing more women. Higher education institutions will have to comply from 1987 and companies employing more than 1,000 people will be obliged to report to the government from 1988.

The proposed legislation, expected to be introduced next year, also provides for a review of industrial awards to eliminate restrictions on the employment of women. Training and education programmes for women seeking jobs usually reserved for men will also be provided.

The proposed legislation was developed by a government working party chaired by the education minister, and the minister assisting the prime minister on the status of women, Senator Susan Ryan.

Senator Ryan said that private employers nervous about the affirmative action legislation should look on the positive side and prepare for the unleashing of a new source of highly talented executive material.

There has been strong resistance to the government's plans from Australia's business community and fears within higher education that gender rather than merit may become more important in appointments and promotions.

Senator Ryan denies that merit would cease to be the key factor in employment. She quoted Sir Humphrey Appleby from the television series *Yes, Minister* who declared: "Minister, if you go around promoting women just because they are the best person for the job you could create a lot of resentment throughout the whole civil service."

Spain's OU is starved of funds

from Peter O'Neill

MADRID

Spain's Open University is being strangled to death by "catastrophic financial pressures", according to its vice rector, Snr Ramon Garcia Cotarelo. He warned last week in *El Pais*, a leading Spanish newspaper, that the troubles of La Universidad Nacional a Distancia could close off the only route to university education for many of the less privileged.

UNED, with cheap student costs but high production (radio, TV, publishing) expenditure, has to fight for a straight budget, in contrast with other universities who are funded on student:staff capitation ratios. It gets no benefit from a very high ratio of 250 students per lecturer – 34 per cent of its costs come from government compared to the average university's 80 per cent.

The UNED started in 1972. Some argued that Franco backed it because it meant that isolated students doing correspondence courses around the mountainous country could not so easily come out on the streets to demonstrate.

Now, exactly 10 years after Franco's death, UNED has a record 98,000 enrolled students. But it is poorly housed with a tiny main centre and its 10 faculties scattered around in other people's left over space. Although another empty building, bigger than ever before, is being refurbished for a main centre, staff say it is already too small. They are short of cash for their most important resources – their library and technological equipment for production.

There is a glimmer of light, the new [illegible] reform of higher education. Students and staff are now electing new rectors, deans and senior administrative staff – the incumbents had to resign and submit to election. Universities will also be allowed actually to go out and raise money for self-financing which will help UNED.

UNED's effectiveness can be seen from one of its ventures linked to current massive reform of Spain's national health service under a new law, the first since 1944. The change is based on a Scandinavian model, using local health care centres to promote health where people live, work and play, rather than just developing major hospitals. This means a strong new role for many of Spain's 130,000 nurses. There is conflict with the doctors. UNED ,set up the special course in 1981 so nurses could update their skills and convert their three-year course qualifications to degree status. According to the general secretary of the course, Maria Paz Mompart, "nurses realized it was the only way to get a new perspective on public health, biology, law, statistics, management, psychology and so forth". Some 66,000 have now completed the course exams. Failure rates are around 30 per cent.

Maria Paz, and her department of 13 lecturers and 25 administrative staff are already conferring with the ministry of health about new training courses to equip staff for the change from hospital-based health to community communication, self-help, prevention and promotion. These, she says, could be aimed at pharmacists, nurses, dentists, doctors and social workers. In theory the traditional universities have much to develop but believes they have been ineffective and the expertise and practical implementation, now rests with UNED.

UNED also intends to exploit the new self-financing deregulation by offering the public short fee-paying, courses. These will not be tied to academic achievement, but rather information dissemination and personal development. That will also help raise the profile of UNED in the popular eye.

UNED hopes to see an expansion of the role of industry in financing courses like those run for Spain's biggest quality chain store, El Corte Ingles. Also, many professionals with a licentiate (essentially an MA or MSc) see UNED as the way to change careers midstream to take advantage of the new mangement and investment developments.

There are also a significant number of prisoners taking courses, including many political prisoners – all get a remission of their sentence if they pass the exams.

Maria Paz sees no rosy future. "We have still no honest acceptance of the fact that our degrees are as good as those of the other universities. We have serious difficulties in the way we function at the moment and unless something is done there are grave dangers ahead. We will not disappear but our numbers and our quality could drop." For an institution that has so much that Spain needs to modernize quickly and that has gone from 11,000 students in 1973 to nearly 100,000, decline through government myopia may be a serious political mistake.

China's show of invention

by Geoffrey Parkins

China has just held its first national exhibition of inventions in Peking. The 10-day exhibition was opened by president Li Xiannian accompanied by Yan Jici, vice chairman of the National People's Congress Standing Committee, and Song Jian, minister of the state science and technology commission.

On show were 348 inventions and scientific findings, including this year's 100 national invention award winners. Forty of the exhibits were selected for display at the 14th International Exhibition of Inventions and New Techniques in Geneva next year.

Almost 1,000 inventions have won national prizes since the award system was introduced in 1978, which are estimated to have yielded somewhere in the region of 26 billion yuan.

Since the introduction of China's patent laws in April this year, the Chinese Patent Bureau has received more than 10,000 applications, and the State Science and Technology Commission has processed 33 applications for foreign patents.

The Peking exhibition was sponsored by the newly-formed Chinese Association of Inventions, set up last month to promote scientific research and its application and protect the legal rights and interests of inventors.

Curbs on animal research

Tougher rules for the treatment of laboratory animals by universities in the United States have been issued by the National Science Foundation, in a bid to curb incidents like the one which led to the recent suspension of the joint head injury research programme between the University of Pennsylvania and Glasgow University.

Under the new guidelines, published in the federal register, each institution will be "held responsible for the human care and treatment of vertebrate animals used in research, development and related activities". Before a grant involving the use of vertebrate animals can be made, the National Science Foundation must be assured that the research has been approved by an animal care and use committee at the university.

Institutions applying for foundation grants must provide information on how many and what species of animals will be used in the experiment, and the extent of any necessary exposure to discomfort, pain or injury the animals will face.

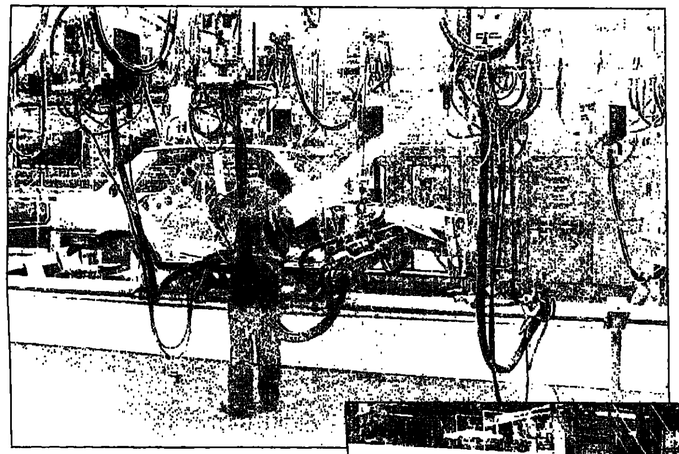
Any university found in breach of the new rules will face the loss of its grant. Initially, all grants earmarked for animal research would be frozen, and the college given a chance to put its house in order. If it refuses, or fails to do so, the money will be withdrawn.

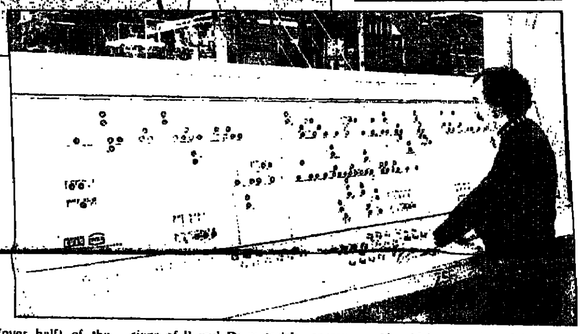
Fading into the sunrise

by Jon Turney

ACARD's current terms of reference are to advise the Government on:
- **applied research, design and development in the UK;**
- **application of research and technology, developed in the UK and elsewhere, for the benefit of both the public and private sectors in accordance with national economic needs;**
- **the co-ordination, in collaboration with the Advisory Board for the Research Councils, of these activities with research supported through the Department of Education and Science;**
- **the role of the UK in international collaboration in these fields.**

In addition, the council advises ministers on the pattern of R and D spending revealed in the Cabinet Office's annual review of government-funded R and D.





A key role in automation: above, car production line in Coventry, right, computerized control and monitoring of Metro multi-welders

If the sun ever sets on British industry, the Advisory Council for Applied Research and Development will probably publish a one-line final report: we told you so.

For 10 years, the council has plied ministers with reports arguing for faster adoption of new technology in manufacturing and services. And ACARD, as it is generally known, had done much to stimulate debate about the hoped-for transition from smokestack to sunrise industries – microelectronics, biotechnology and new materials in place of coal, steel, shipbuilding and cars.

Now ACARD enters its second decade under a new chairman, Sir Francis Tombs of Rolls Royce, looking for a stronger voice in development of a national strategy for research and development. And although workers in research council and university laboratories normally listen to the Advisory Board for the Research Councils – the other main source of advice to Government on science and technology policy – for hints about future priorities, ACARD is likely to strengthen its influence in these sectors as it firms up ideas about picking future scientific winners.

A report to be published in the new year will reveal the results of a council study trying to identify scientific developments which show commercial and economic promise, and recommend how this work might be taken further. The outgoing ACARD chairman Sir Henry Chilver, vice chancellor of the Cranfield Institute of Technology, hopes this will lead to a widely accepted set of priorities for applied R and D.

The move toward strategy has been on the council's minds since it was set up in 1976, when chaired by the Lord [illegible] science and technology, and went along with creation of a chief scientist's post in the old Central Policy Review Staff in the Cabinet Office.

ACARD is still serviced from the Cabinet Office, by staff under the current chief scientist Sir Robin Nicholson, and formally reports directly to the Prime Minister – a key to its influence, according to Sir Henry Chilver. In its early years, its reports mostly concentrated on raising awareness of new technologies, with questions of strategy confined to occasional asides.

The important thing was to advertise the potential importance of the new wave of science-based technologies, at a time when factory automation, for example, was still widely seen as an idea oversold in the 1950s which had never regained credibility. As recently as 1978, ACARD's first report – on the applications of semiconductor technology – was also the first official recognition of the impact of the microelectronics revolution.

Although that report said "the council believe in a national technology strategy", the immediate educational task squeezed out detailed discussion of how to write one. And the same was true in a stream of reports which followed, some on other facets of information technology such as computer-aided design or advanced manufacturing technology and robotics, others in areas such as biotechnology or food processing.

Professor John Ashworth, looking back on his time as first chief scientific adviser, reckoned these reports were effective in "directing the attention of ministers and senior civil servants to scientific and (especially) technological issues." In general, Sir Henry agrees, saying the council was moderately successful in strengthening awareness in key fields.

But the members of ACARD – mainly technical executives from the big companies with a sprinkling of academics and a token trade unionist – were not content with going through the new technologies one at a time. A complementary series of reports on general policy issues kept returning to questions of strategy, notably an important agenda-setting paper in 1979 on "threats and opportunities" for the UK from technological change in industry. Although now faced with a new, avowedly non-interventionist government, the report called for development of technological strategies for different sections of industry. And the council proposed that research and development programmes of the Department of Trade and Industry, research associations, and parts of the research councils, should fit such strategies.

Two other factors impelled ACARD toward strategic issues. First, the list of new technologies would not keep the council in business indefinitely. Along with studies like the Collyear report on materials and the Alvey report on computing from the Department of Trade and Industry, ACARD [illegible] promising areas. As Sir Robin Nicholson puts it, ACARD will go on writing reports in the old style, but "new areas don't come up that rapidly".

Second, changes in science administration introduced in 1981 strengthened ACARD's role. The government asked the Cabinet Office to produce the new review of government research and development in Britain, shortly to appear in its third edition. The review was supposed to lead toward an overview of state-backed R and D, "distinguishing between vital and dormant areas, identifying gaps, disparities and duplications". And ACARD was asked to comment on the spending patterns revealed.

These comments, which are confidential, are designed to feed into the annual bilateral discussions between spending departments and the Treasury. According to Roger Courtney, formerly Nicholson's number two, this "gives ACARD a direct influence on some of the most important negotiations in government".

So far, the council's comments have been as much on the form as the content of the annual review, but the £10 million cut in the Ministry of Agriculture's research budget for 1986 stems in part from ACARD's influence. The increased concern about the high proportion (over half) of the Government's £4.5 billion annual R and D spending going on defence also owes something to the councils scrutiny of the annual review. Its comments are likely to grow more detailed now the review's format is properly developed.

A further change in 1981 was Sir Henry Chilver's assumption of the chair of ACARD. Sir Henry, a member of the council almost since its inception, is a firm believer in the importance of developing an overall strategy. He starts from the fact that Britain performs just five per cent of the world's research and development. This underlines the need to be selective, but the selection must be carefully done. "There is no future in just conceding to one lobby after another", in his view, as this leads to concentration in the wrong areas.

The right areas are those we can exploit using our own stock of knowledge, and our awareness of others' work to take a share in growing world markets, he argues. And Sir Henry suggests focusing on four general divisions of R and D: materials, energy and power, information and communications and biological processes.

This line of thinking pointed to an ACARD group to try and review a wide range of scientific and technological possibilities, and such a group was set up in 1983, chaired by Dr Charles Reece, research director of ICI. The group was asked to survey current science, and try and identify areas likely to be commercially or economically important in 10 or 20 years' time.

The caution attending the project at the outset is shown by the initial suggestion it would not produce anything for publication. Its success is shown by the fact the report is due to go public soon, and itself follows up a book produced by two researchers commissioned to review other countries' efforts in technology forecasting.

The basic message of that book, *Foresight in Science* by Ben Martin and John Irvine of the Science Policy Research Unit at Sussex University, was that attempts at scientific and technical forecasting can be fruitful, and play an important part in framing policy in some of our leading competitor countries, notably Japan.

The group seem to have bought the message. According to Dr Cyril Hilsum, a member of Reece's group and chief scientist at GEC's research laboratories, "most of the group became convinced that such analysis was both possible and desirable". He told the British Association for the Advancement of Science earlier this year that accuracy was less important than thinking about the future.

Another enthusiast, Professor Gareth Roberts of Thorn-EMI and Oxford University, told the BA what the group tried to do. He saw their task as trying to analyse the technology relevant to selected areas of economic activity, and then considering which parts of scientific research were likely to contribute to such technologies. If a single general area, like Roberts' own speciality of molecular electronics, comes up repeatedly in this sort of analysis, there is a case for targeting it as a research priority.

Professor Roberts, for one, believes the results are persuasive, and has become an advocate of trying to structure government research support to guide a high proportion of the spending into selected areas. The group has been trying to work out how to take this idea further. Roberts favours a study group extending the analysis in more detail, and giving advice to the council, and to the Advisory Board for the Research Councils.

This raises a host of political problems, not least for the relations between these two key committees, one with a general remit for applied research, one advising on a specific budget in one department. The changes made in 1981 were supposed to bring the two closer together, but few would claim that ties are tight. Sir Henry Chilver, for example, rarely attended ABRC meetings.

If Sir Robin Nicholson and ACARD strengthen their role in the government's overall effort to do the jobs of a science minister without actually having one, ACARD's work is likely to have more powerful effects on ABRC decisions. So looking a long-term follow up to Dr Reece's group in the cabinet office might arouse suspicion in the DES.

If, as some suppose, something more permanent is set up outside government, finding it a home and some money may prove tricky. The Technical Change Centre in London and the Fellowship of Engineering, which has good links with ACARD, might both be possibilities to manage such a unit, but neither yet has the stature to make them obvious candidates.

Sir Henry hopes government would become a party to such an effort, but thinks any relationship with ACARD should be indirect. Sir Robin Nicholson will not be drawn on whether such an initiative should be in government or outside, but he does not want to rush into anything: "We've managed without a Japanese style activity for many years if we're going to do it let's get it right."

Or as new ACARD chairman Tombs puts it, "We attach very high priority to it, but the worst of all worlds would be to go off at half cock". So it begins to look as though Reece's group will make a tentative recommendation and call for a more detailed study of the options by a new committee, which will have time to consider comment on the details of the first report.

Full membership of ACARD

Sir Francis Tombs, chairman of Rolls Royce, (chairman).
Mr Matthew Bullock, director of corporate finance for Barclays Bank.
Mr John Coplin, director of design, Rolls Royce.
Sir Kenneth Durham, chairman of Unilever.
Mr John Fairclough, director of manufacturing and development for IBM.
Mr Anthony Gill, managing director of Lucas Industries.
Mr Eric Hammond, general secretary of the Electrical, Electronic Telecommunications and Plumbing Union (EEPTU).
Dr Brian Lindley, technical director of BICC Cables.
Mr Geoffrey Lomer, technical director of Racal Electronics.
Mr Robert Malpas, managing director of British Petroleum.
Professor Stan Metcalfe, professor of economics at Manchester University.
Sir David Phillips, chairman of the Advisory Board for the Research Councils.
Dr Charles Reece, director of research and technology for ICI.
Sir Rex Richards, chairman of the Leverhulme Trust.
Professor Desmond Smith, professor of physics at Heriot-Watt University.
Assessors:
Sir Robin Nicholson, chief scientific adviser, Cabinet Office.
Dr Marilu Holdgate, chief scientist, Department of the Environment.
Dr Derek Pooley, chief scientist, Department of Energy.
Mr Oscar Roith, chief engineer and scientist, Department of Trade and Industry.
Professor Richard Norman, chief scientific adviser, Ministry of Defence.

Karen Gold reports on a study day held by the Cambridge University Disarmament Seminar

A matter of public opinion

Polls are peculiar things: ambiguous, inconsistent, easily-influenced. Rather like people really. But if you want to find out what people think about an issue, there is little option but to use them.

Hence the recent opinion poll-dominated study day held by the Cambridge University Disarmament Seminar, on public opinion and nuclear defence. Not just an academic exercise – despite the attendance mainly of senior university members – but also an attempt to assess what gleanings of public opinion on nuclear weapons implied for committed disarmers.

The unreliability of polls turned out to be a two-edged sword, which both the Campaign for Nuclear Disarmament and the Ministry of Defence were quite capable of exploiting. CND's 1984 poll showing a 63 per cent majority against the purchase of the Trident missile submarine was condemned as the result of leading questions. Part of Secretary of State for Defence, Mr Michael Heseltine's public relations strategy was to commission a poll which would support the Government's defence position – with questions so obviously slanted there were protests (unheeded) from MoD statisticians. (This fact was revealed by Mr Clive Ponting, the former senior MoD official who stood trial for leaking Falklands secrets.)

With caveats about polls established, the picture of British public opinion on nuclear weapons is hazy. Some points, however, are clear. One is lack of information: over 80 per cent of people think Britain should stay in Nato, according to a 1984 Gallup poll quoted by Hugh Berrington, Newcastle University's professor of politics. But over 50 per cent of the population are unable to say when asked what Nato actually is.

The often-quoted gender gap on weapons – with women supposedly more anti-nuclear than men – may not be true, according to Professor Berrington, since strong evidence for it comes *from only one poll. Studies of electorate* panels over periods of time show that beneath the relatively static proportions of those for and against nuclear weapons – with the majority always against unilateral disarmament – individuals frequently change their minds.

The picture is of a conservative electorate, generally supporting the status quo, but very strongly anti-American (which may partly explain larger than expected numbers against Cruise) and with a huge majority in favour of a "dual key" for weapons.

As John Curtice, lecturer in political theory and institutions at Liverpool University and joint author of the *British Election Study*, put it: "Essentially the British electorate is Gaullist. They like them if they're ours, and they dislike them if they're Ronald's".

The public's influence in such matters is clearly strongest at election time. (Although a stylish study of political activists by Catherine Marsh, Cambridge University lecturer in social and political sciences, showed that the people most likely to mobilize others into political action outside election times were trades union representatives, and their opinions were significantly out of step – more right-wing, in spite of popular images of left-wing trade union activists; more complacent about nuclear weapons and more pro-Nato – with those of their members).

But if election time is when the public influences politicians, it is also a time when politicians can seek to influence the electorate. The support for Cruise and Trident increased during the 1983 election campaign, according to Berrington, arguably because voters were changing their views on *issues* in order to conform with the *party* which, for other reasons, they intended voting for. Since 1983 there has been a small rise in the numbers supporting nuclear disarmament in the social attitudes survey, suggesting – according to John Curtice – the gradual shift in Labour *Party* supporters to supporting its defence policy as well.

Received wisdom about the last general election was that it had been a disaster for unilateral disarmers, and the unilateralist policy had been disastrous for Labour, Mr Curtice said. Certainly defence was a major issue, unlike during 1970s election campaigns where a question on defence was not even included in election opinion studies.

Labour undoubtedly lost votes over the ambiguity of its positions on Nato and Polaris, and on the public perception of its defence policy as extreme. A detailed study of public opinion on defence during the election asked people to place the parties on a sliding scale between unilateral disarmament and nuclear expansionism. Most voters put the Alliance in the middle, the Conservatives between the middle and expansionist positions, but Labour at the far end of unilateralism.

Nevertheless 26 per cent of people said the Labour position was still closest to their own, and most people adopted positions for themselves along the scale *rather than at the extremes, suggesting* there may be more potential support for [illegible]

Depending, of course, on what people mean by unilateral disarmament.

The question underlying these findings, in the minds of some hearers at least, was what to do about them. There were verbal scuffles over what "unilateral" meant. "Would you prefer 'one-sided'?" Professor Berrington drily asked one CND supporter who objected to the word.

It was a question of presentation, they argued. Presentation – that ignorant pro-Nato majority again – and persuasion: whether to plump for mass campaigns or concentrate on political activists and, despite indications that disarmament was not a vote-winner but might not be a vote-*loser*, on political parties.

But would changing the public's mind be worth the effort? Decisions on nuclear weapons were not made by Parliament but by scientists, the intelligence community, defence contractors and procurers and military chiefs, [illegible] of the Oxford Research Group, [illegible] Those who had the power were not accountable; those who were accountable did not have power, she said.

Mr Ponting filled in the picture: public opinion had very little or no influence on the MoD, except as something to be manipulated. There were "few arguments but lots of rows" inside the ministry: few arguments about defence strategy, because of the post-war concensus on nuclear weapons; rows between the service chiefs over budgets and power.

Unlike in America there was little academic contribution to defence policy, because the MoD knew what it thought already. So did ministers; hence no civil servant with any sense would even put a non-nuclear option to a member of the Thatcher Government – it would be a waste of everybody's time. The debate over replacing Polaris did not include the option of *not* replacing it. Outsiders were unwelcome: the suggestion of inviting members of Bradford University's school of peace studies to the annual MoD lunch for defence academics "produced apoplexy inside MoD". Civil servants would also not understand the technology of nuclear weapons: they knew only what scientists at Aldermaston (the weapons research establishment) wanted them to know.

Freedom of information might help, since then at least informed debate would occur, Mr Ponting said. But even if a pro-disarmament government were elected – the goal the discussions of the day appeared to point towards – that would only be the beginning.

"It would require a great deal of political courage. You might achieve the cancellation of Trident: there's opposition to Trident inside the MoD. Would you keep research going at Aldermaston? If it were decided not to scrap Polaris immediately, there would be a decision I would guess to keep Aldermaston going for five years.

"People would argue very strongly indeed that US bases should not be removed from Britain, and the most that should be done is to remove American nuclear weapons. So F/111s would remain, the warheads would be [illegible] as having done what they said they would do."

Fighting for the private armies

"Did you smell the tear gas this morning?" asked my guide. We were driving past one of the private universities which dot this teeming city like cloistered clearings in a rampant commercial jungle. I hadn't, as it happened – the wind was blowing away from my hotel – but a gas mask and a healthy sense of self-preservation are essential tools for anyone taking a close look at Korean higher education in 1985.

The students are revolting. Not yet en masse, and not at present beyond the boundaries of the campus, but with a frequency and regularity which has the government of President Chun Doo Hwan twitching nervously. This would not be the first Korean administration to fall to a student uprising.

The burden of the students' complaints, evidenced by crude posters hung on college noticeboards, is the government's refusal to amend the country's 1980 constitution to provide for direct presidential elections in 1987. The current intention is for elections to be indirect, which opponents of the ruling Democratic Justice Party regard with grave suspicion. Though President Chun has promised to step down in 1987, he is not widely believed. The students suspect that the elections will be manipulated to extend his autocratic rule.

From the point of view of higher education, there is a certain irony in all this. Of all Korean governments – and the country has never yet been ruled as a democracy – this one is probably more aware of the needs of education than any of its predecessors.

The ministers of education, finance, and science and technology are all former professors, and a presidential commission to review all levels of education was set up earlier this year. More students are now at college and university than ever before: 1985 enrolment topped the million mark for the first time. And though levels of achievement may not be high by western standards, they are creditable for a developing country with limited resources.

None of which impresses the small radical minority of agitators on Korea's 111 campuses, who regularly

The rise of south-east Asia as a major trading region has paved the way for a rapid development of higher education there. In the first of a series of articles on the region, WILLIAM NORRIS visits South Korea.

WORLDWIDE

lead thousands of their fellow students to the barricades. The disturbances have acquired a sort of ritual quality, with chanting students inside the university gates facing ranks of helmeted police who stay outside until things hot up. Eventually stones fly, tear gas is fired in response, the police charge, and the students scatter back into the university buildings. Another riot is over for the day.

Considering that such events wreak havoc with the educational timetable, the response of Korean faculty to the current unrest is remarkably mild. The miscreants are sometimes expelled (but often turn up on the campus just the same) but the general attitude is one of tolerance and even sympathy.

This is not to the liking of the ministry of education, which takes a much harsher and unforgiving line with the rebels. Last week 10 graduates from Seoul National University were denied teaching positions because of their past involvement in student riots. Their offences had taken place between 1975 and 1978.

Ministry officials regularly complain to deans that they are not sufficiently strict, and universities which fail to curb the unrest on their campuses sometimes suffer retaliation in the form of a restriction on the number of undergraduates they can enrol.

Though seemingly innocuous, this penalty is quite serious for the private universities, which accommodate some 75 per cent of Korea's student population. During the boom years following the Korean war, private universities were highly profitable concerns. All that has now changed. The government of President Chun has altered the taxation rules in such a way that universities now have to rely for almost all their income on the tuition fees of students – and at the same time it has limited the amount of that tuition to the equivalent in Korean won of around $1,200.

At that level, and without any government subsidies, the private universities are finding it hard to make ends meet. If they are not allowed to recruit more students, investment in top quality faculty and the sort of equipment needed to advance the level of higher education in science and technology becomes virtually impossible.

The rationale behind the government's policy appears simple: education is highly prized in Korea, if for no other reason than the fact that salary scales in both the public and private sectors are vastly in favour of the university graduate. He or she can expect to earn, automatically, some 30 per cent more than a high school graduate doing the same job.

It is therefore politically sound, with elections not far away, to get as many young people as possible to college. And since Korea operates on the American system of students paying their way, with the possible assistance of loans, low tuition fees are an essential part of the exercise.

Until now this has worked fairly well. Korea has been highly successful in exploiting traditional technologies with a low-paid labour force, and has built up a thriving export trade. But things are changing. Tariff barriers are beginning to rise against Korea, and countries like Japan are increasingly unwilling to see their technology copied and their exports outsold. Korea now faces the prospect of having to do its own innovation, and for that it will need higher education of quality, not quantity.

This is the dilemma which faces the new president's commission on education. The government recognizes that more investment is needed in the universities, but is caught in a dilemma. Should it increase support of the 10 public colleges and subsidize the private sector, which would mean increasing taxes? Or should it deregulate tuition fees and permit the universities to raise the money themselves, keeping out the poorer students? Neither alternatives is attractive to a party facing elections in 1987.

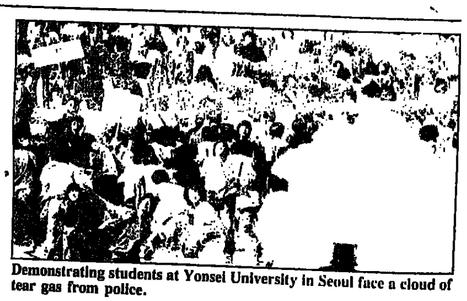
According to Dr In-Suk Chang, secretary-general of the Korean Council for University Education, and chairman of the higher education section of the president's commission, the latter solution is more likely to be adopted. But there is a third alternative now being widely touted among the universities: that some 20 per cent of the available places be set aside for the children of wealthy parents whose offspring would not make the grade on purely academic grounds. Advocates of this idea claim that there is no shortage of suitable candidates – professors are frequently approached with offers of money, if only they will admit the scions of rich families to the more fashionable colleges.

Dr Chang reacts to this suggestion like the oriental equivalent of a vicar invited to an orgy. The Korean people, he says, have such a passion for equality that the proposal would lead to acute social unrest.

Professors who feel that Koreans have suffered far worse in their time for less worthy causes, disagree. They point out that the standard of budding undergraduates is not, *in any case, all* that high. The present *qualification* for entrance is a multi-choice state examination, which is already the subject of much criticism among faculty. It is taken by virtually every high school graduate, eager to earn the extra won which a degree will bring. Some 700,000 sat the exam this year, and around 200,000 were admitted to university – giving Korea a remarkably high ratio of children going on to higher education.

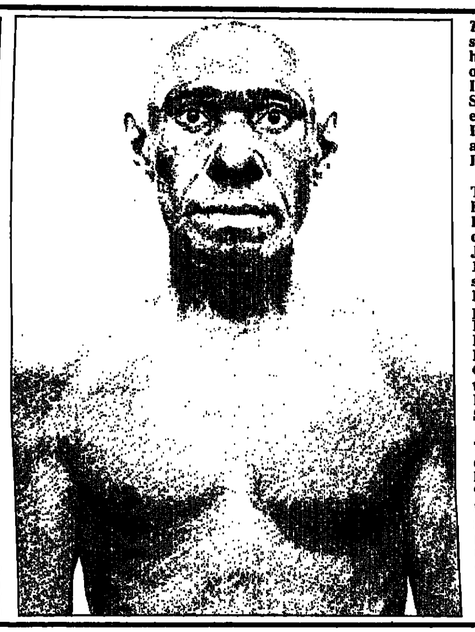
The cash-hungry private colleges would be quite happy to see that ratio reduced a little, if only they could give a better education to the remainder for the price of admitting a few rich kids in the long run they might not even have to offend against Korea's sense of fairness, for there is another government regulation which could relieve their consciences of actually graduating wealthy dunces.

By law, Korean universities have to fail 30 per cent of the students they admit. The intention is to make undergraduates work harder. It may be another reason why the campuses so often smell of tear gas.



Demonstrating students at Yonsei University in Seoul face a cloud of tear gas from police.

In the second part of our series on anthropology R. D. Martin considers the subject as a natural science



Did our ancestors look like this? Biological anthropology helps us reconstruct figures like that of Neanderthal man

***The Human Story*, dealing specifically with the biological heritage of the human species, opened at the Commonwealth Institute on November 21. Sponsored by IBM, the exhibition will travel to five European and five African cities after it closes at Kensington on February 23.**

The idea for the exhibition was hatched in a discussion between Richard Leakey and the director of the Commonwealth Institute, James Porter, in the summer of 1982. A committee was subsequently formed with Professor Carl Gustaf Berhard, personal science adviser to the King of Sweden, Professor David Pilbeam of Harvard and Professor Yves Coppen of the Collège de France, who had together just founded the International Programme for the Study of Human Origins.

The exhibition that resulted is designed as a set of seven modules linked by three-dimensional "time boxes" that help to ease the transition through vast periods of geological time. Dioramas bring particular aspects vividly to life and there are "stop press" displays reporting the very latest discoveries (including a cast of the new *Homo erectus* skeleton from Lake Turkana).

The quest for our origins

It is natural for any human society to show a profound interest in its history. Knowledge of one's own personal history and of the history of the society to which one belongs provides a comforting sense of place and continuity. Historical knowledge also acts as essential cultural cement. History based on written and oral records has an established niche within the humanities and an equally secure position within the school curriculum.

If we pursue the quest for historical material further back into time, we enter the archaeological realm. Here, too, we find established recognition within the humanities, though archaeology is not usually covered in the school curriculum. Pushing back even further into time, we eventually run out of actual archaeological evidence, that is to say material evidence of human activity. We also find that we have crossed a great disciplinary divide, for we have entered the biological realm of evolutionary history. Convention has it that archaeology belongs to the humanities while evolutionary biology belongs to the natural sciences, so needless to say communication between the two disciplines is hindered.

This area, perhaps more than any other, starkly illustrates the increasing separation of "two cultures" clearly signposted by C. P. Snow, but largely left to run its course within our educational system. Thus it is that there are numerous publications on the fossil evidence of human evolution and many dealing with the artifacts found in association with those fossils, but it is rare indeed to find a successful synthetic discussion of the biological and archaeological evidence.

Evidence relating to the evolutionary origins of mankind is just as much a part of our historical heritage as material evidence from the relatively recent past, but an arbitrary cut-off is imposed by the awkward arts/sciences gulf. A biological sense of man's place in nature is at least as important to modern living as an understanding of social history. Human societies must maintain a balance with the biological environment as well as preserving their internal social cohesion. Until recently, however, the biological [illegible] modern living was largely omitted from the school curriculum.

The term anthropology is barely understood in schools, not least because it is subject to a variety of interpretations at university level. In the United Kingdom, anthropology is commonly taken to mean only social anthropology and in the majority of university departments this is the only brand of anthropology available. Where links exist, they tend to involve subjects such as sociology. Perhaps for this reason, the University Grants Committee has confusingly chosen to classify all anthropology as belonging to the social sciences.

In the USA, by contrast, anthropology has traditionally been taught as a broad-based subject incorporating the full range of biological anthropology, material culture and social anthropology. Within the UK, the only university department to provide such broad coverage of anthropology is at University College, London. Social and biological anthropology are both taught in Cambridge, Durham and Oxford. Elsewhere in the UK, anthropology is taught more or less without reference to biology. Yet in France, for example, *anthropologie* refers essentially to biological anthropology.

For this reason, it is important to emphasize that many anthropologists, whatever their backgrounds, are united by a comparative approach to man. The work of both social and biological anthropologists has drawn some of its greatest strengths from comparisons of different human societies, while biological anthropologists concerned with human evolution have relied in particular on comparisons between the human species and other primate species. By means of the comparative approach, it is possible to identify general principles and to place the human species or a particular human society within a general theoretical context.

Biological anthropology provides a superb example of practical interdisciplinary research. Studies of human origins have traditionally had a strong base within the medical sciences, since detailed knowledge of human anatomy is required for interpretation of human evolution and since the evolutionary perspective has paved the way to a deeper medical understanding of our own anatomy. There is also a strong intellectual affinity between medical practitioners and biological anthropologists in that both commonly deal with the intact organism in cases where, for various reasons, they cannot employ the incisive experimental method.

[illegible] the history of the human species and the [illegible] modern human pattern of bipedal walking. To complement this australopithecine evidence, an almost complete skeleton of *Homo erectus* from Richard Leakey's West Lake Turkana site in Kenya has just been reported.

Modern excavations of a hominid fossil site require the co-operative endeavours of a whole team of scientists from different disciplines, ranging from geologists concerned with dating and description of fossil deposits to archaeologists concerned with documentation of any artifacts associated with hominid remains. Vital new disciplines have also grown up, including taphonomy (the study of the way in which fossil remains are laid down) and palaeoecology (the reconstruction of broad ecological parameters of the environment in which members of the fossil assemblage once lived).

New technical developments, often within the medical field, have been rapidly applied to the investigation of mankind's fossil relatives. Interpretation of the hominid footprint trail by Day and Wickens, for instance, benefited from the application of new photogrammetric equipment for contour analysis of the foot impressions. Similarly, following on from earlier simple X-ray studies of fossil specimens, *computerized tomography is* now permitting three-dimensional study of the internal structure of skulls. It is, for example, now possible to study cranial morphology and to measure the cranial capacity of a hominid skull that has not yet been removed from the fossil matrix. There have also been major advances in the interpretation of dental evidence: thickness of dental enamel is an important feature in the evolutionary radiation of apes and man; in an even more promising development, it has emerged that incremental growth in teeth can be measured and the results used to determine the biological age of individual fossil specimens.

Advances in theoretical approaches have been every bit as important as practical developments. Because of widespread anthropocentrism, it was commonly assumed in the past that wherever any differences exist between man and the great apes (our closest zoological relatives) it is necessarily the great apes that are primitive. On the basis of well-established theoretical principles, it is now possible to tease apart those features in which great apes are primitive and those in which humans have remained primitive.

Perhaps inevitably, studies of human origins have in the past attracted more than their fair share of cranks and charlatans and slapdash science has been rather too prevalent. The Piltdown fraud represents the well-known, unsightly tip of this particular iceberg. Nowadays, however, things have changed radically. There is, of course, still the sensationalist side of the subject, fuelled by public fascination. Astute fossil-hunters turn the publicity surrounding hominid fossil discoveries to advantage in raising additional funds for a subject that has never received the massive funding provided for pure laboratory sciences. Behind the scenes, however, a major effort has been under way to guarantee the application of rigorous scientific standards.

One of the main ways in which new knowledge regarding human origins has been generated is, of course, the discovery of new fossil specimens. In recent years, there have been some particularly impressive finds. At the level of the australopithecines ("apemen"), the discovery of the partial skeleton now widely known as "Lucy" represented a major breakthrough and has led to quite marked revision of our interpretations of that phase of human evolution. Equally exciting was the discovery of a fossilized trail of footprints that actually antedates the Lucy skeleton and provides the earliest [illegible] [illegible] [illegible]

Harold Silver

Home threats from abroad – Sir Keith's Kremlin tactics

As the only person to have been dismissed from a committee of the National Advisory Body I can sympathize with their dismay at being threatened by Sir Keith Joseph with dismissal from their responsibility for reorganizing teacher education. When, first time round, the NAB failed to "rationalize" (one of the more translucent euphemisms of recent decades) teacher education, Sir Keith wrote a polite but stiff letter suggesting they might do better next time. When this year, second time round, the NAB board turned down virtually all the advice given to it by the Teacher Education Group, and simply recommended rationalizing one college out of existence, Sir Keith must have turned a whiter shade of pale, and rejected their mini-advice.

Start again, and finish by Easter, he instructed. Not possible, said the NAB, and in any case there's a comprehensive planning exercise and it's better tackled as part of that (which is what most people thought in the first place). Do what I say, responds Sir Keith, or I'll get the DES to do it, and take away your Brownie points, or a trifle worse.

Teacher education is never out of the firing line

Teacher education is not so much back on active service in the firing line, as never out of it. Battlefield is perhaps the wrong metaphor, since teacher education is talked about world-wide as a partnership – of teacher educators, the teaching profession, parents and public, local and central authorities . . . or some such combination. So perhaps it's all more like a party, and the game is to find out who your friends are.

Margaret Thatcher stressed partnership in her 1972 White Paper on education. Conferences of the International Council for the Education of Teachers stress partnership – for example between teacher educators and teachers' organizations who need to "share governance in new ways". Sir Keith's 1983 White Paper on *Teaching Quality* favours teacher involvement in the professional elements of teacher education. The international rhetoric is easier to hear than is the practice to see. If the teacher has an uneasy status in public images of the professions, so does the teacher educator in the opposing pressures of institutions and their cultures, and the needs of the schools and the teachers present and future. What the argument surrounding the NAB and teacher education is about is the fragility of the teacher education exercise in Britain more than perhaps anywhere.

It has been fragile at all times, when the dominant pressures on it were from the church, when local authorities set up their training colleges in the same traditions of a stern morality and a curriculum balanced between the instrumental and the transmission of traditional values, and when – from the 1920s – it fell prey to increasing attempts at governmental manpower planning. Teacher education has adapted and readapted to the "higher education" environment it entered and helped to create in the public sector. It has in recent years been subjected more than any other part of higher education not to the zigzags of demography and economics, but to government perceptions and predictions of those. Governments have invariably got the whole exercise wrong, expanded the system too late, cut it too soon, miscalculated wildly in both directions, and thrown colleges, departments and staffs to the wind and the wolves.

It has been, and is, a question of resources and quotas, and changes of mind, but it has become, in the past five years or so a bombardment of pressures which need to have been experienced to be believed.

The NAB (until recently the DES, and if Sir Keith doesn't get his way quickly it will be the DES again) dictates numbers and distribution and phase (secondary, primary . . .), and the university system has developed its own machineries of control. The Council for National Academic Awards and some universities validate courses. For both the universities and the local authority institutions, the Government set up the Council for the Accreditation of Teacher Education to implement the criteria promulgated by the Government itself in *Teaching Quality*, to approve or disapprove courses "against the criteria". The aim, as expressed in *Better Schools*, was "to promote a more rigorous approach to initial teacher training" (not, it should be pointed out, teacher *education* – which it was hoped, was the concept established in recent years). Given the substantial involvement of the HMI in evaluating teacher education courses, the flood of pressures on the institutions from well-wishers and critics alike, and the avalanche of discussion papers and DES policy statements, the local basis of teacher education-schools-local authorities has come under increasingly centralized strain.

The problem is not, in fact, criteria, rigour, evaluation, or any of those things – each of which has its virtues and controversies. The problem is the top-down centralization of the whole process, and the pressures on institutions not to find better ways or innovate or whatever, but to acquiesce, to toe the line, to produce the most conservative responses. Teacher education has become more of a victim to the Sovictization of British educational policy than any other part of the system.

It is arguable that government steps in to fill a vacuum

Arguing for reform of teacher education – a persistent theme of the 1970s and 1980s in the United States – veteran B. O. Smith wrote in 1980 (in the *Kappan*) what could well be a contemporary picture of the British scene: "More and more, the tendency is for state and federal legislatures to lay down directions, policies, programs, and even curricular content, which in turn are interpreted and transformed into regulations by bureaucratic agencies".

It is arguable that government steps in to fill a vacuum, created in part by the failure of teacher education to reform itself, but there is no doubt that in conditions of great difficulty teacher education has changed radically in the past decade. The danger of the tendency Smith describes is that it becomes excessive, that government ceases to be part of the partnership, and destroys the partnership, reduces initiative and morale to the point where the centralized directions, programs, and even curricular content are imposed lifelessly and without the outcomes – some of which are desirable ones – the policy makers intend.

The signals are clear enough. The work of CATE, good or bad, is imposed on the system, is outside the partnership. The pressures are towards a One Best Way. It is not a One Best Way that is needed, but new ways that are shared.

The case for the defence

James Thompson answers Nora Beloff's criticism of his book on nuclear war

It is always a pleasure to find that someone has read one's latest book, even if it is only every other sentence. It is thus flattery of a sort that *Psychological Aspects of Nuclear War* has found a reader in Nora Beloff, who then felt impelled to write an article about it ("The psychology of war and peace", *THES*, October 11).

The tone of the article is so unpleasant that one is tempted to let it sink into obscurity. Not many people are likely to be misled by such an extreme approach, but if her allegations are left unanswered they might prejudice some of those who have not had the chance to read the book for themselves.

The book was written on behalf of the British Psychological Society to summarize the published data on psychological aspects of this contentious and emotional issue, and was deliberately restricted to: "the psychological assumptions behind current civil defence planning and the likely psychological state of those who survive the immediate effects of nuclear bombing: human fallibility and the risk of accidental nuclear explosion, and conflict and negotiations". Each draft was carefully scrutinized by referees who worked to ensure that it gave a balanced account, a view shared by most reviewers.

The book describes reactions to disaster, and concludes that civil defence preparations, as conceived at present, make assumptions about human responses which are not born out by the results of research into disaster behaviour. I did not conclude, as she asserts, that civil defence is positively wicked. Nowhere in the book is there any such remark. Beloff also gives a quotation which appears to come from the book, and is presented within inverted commas. "It [civil defence] deflects community leaders from effective participation in the struggle against the threat of nuclear war". This is not verbatim, such a rearrangement of a sentence earlier in the chapter, in which I am reporting someone else's views on the presumed effects on potential community leaders of attending civil defence courses. Furthermore, I then go on to give another reference presenting views both for and against civil defence.

On the issue of human fallibility, the book concludes, among other points, that: "The psychology of group processes helps us to understand the way in which rigid and polarized positions can be maintained, misperceptions of others can be reinforced, and valid information can be ignored or distorted. In periods of heightened tension, inappropriate reactions to ambiguous events may dangerously worsen the crisis".

The book does not claim that as she asserts, "psychologists are uniquely qualified to reduce the risks of nuclear war". Quite to the contrary, all the difficulties about making psychological comment on international negotiations are highlighted on the first page of the chapter. Beloff then compounds this by drawing a silly conclusion. Even if psychologists are qualified to advise others how to reduce risks, it doesn't follow that they must become generals, ministers or diplomats.

Mentioning the danger of unstable people handling nuclear weapons, Beloff alleges that "to avert this risk he suggests that all the men involved be vetted by psychologists". The text simply points out that according to the Congressional Record doctors and psychologists aren't necessarily used at present, although undoubtedly psychological techniques could help in screening. The book doesn't give specific guidance about such improvements because selection procedures in most countries remain secret. I have not been able to obtain any Russian or British data, despite requests, a level of secrecy which contrasts unfavourably with the American approach. But where does this lead her? To the bewildering conclusion that "in seeking posts of military responsibility in the nuclear field, only militarists should apply".

The psychology of war and peace

[presumably on Greenham Common] in the struggle against the threat of nuclear war."

Among soldier[illegible] in which the author, himself formerly a Soviet disarmament expert, describes the frustration of the Soviet specialists

Her version of the Wilkenfeld and Brecher data is then used to justify what Beloff regards as a "rational deduction". She suggests readers will conclude that Britain should leave NATO. I simply do not see how there is a "rational deduction". It could equally well be argued that NATO has highly successful in controlling Russian influence.

Next, Beloff takes my comment that negotiators who reach agreement with their opposite numbers often have problems getting their constituencies to accept them when they return home, and suggests that this would be a more severe problem for the Soviets, who would face prison or psychiatric incarceration. If one takes this remark at face value, and applies it to the last breakdown in talks, the famous "walk in the woods" agreement, it will be recalled that on returning home it was the American negotiator, Paul Nitze, who was replaced.

I think it is closer to the mark to say that when negotiators meet face to face they can sometimes find solutions to common problems, because they have gone through the intense experience of personal confrontation. People who are further away from the event can often maintain a stereotype of the enemy, and reject these solutions. Reactions like these have been found in Northern Ireland, where attempts have been made to bridge the Catholic-Protestant divide. Participants at these meetings can often profoundly change their attitudes, but experience great difficulties when they return to their own divided communities.

Beloff's final paragraphs make the point that Soviet society is very different from the West, and that there are difficulties in organizing East-West meetings on the nuclear issue. This is, of course, the whole point of negotiations. Unless there are profound differences of view there is no need to meet. Beloff seems to be implying that she has inside knowledge of Soviet malevolence which the book ignores. She appears to assume that Soviet people have a "manichean view of the global struggle" without assessing the prevalence of such presumed views in all nations.

I think it better to ignore some of the wilder attempts to attack the book, such as deriding it on the basis of the books/maps that sell it and the politics of the people who have reviewed it and readers misled. In the interests of accuracy, readers should compare the original and make up their own minds.

The author is senior lecturer in psychiatry in the Middlesex Hospital Medical School. Psychological Aspects of Nuclear War is published by the British Psychological Society and John Wiley and Sons, price £3.95.

BOOKS

The revisionist line on Stalin

by R. W. Davies

Rethinking the Soviet Experience: politics and history since 1917
by Stephen F. Cohen
Oxford University Press, £15.00
ISBN 0 19 5034686

Professor Cohen, author of an outstanding biography of Stalin's opponent Bukharin, and an active campaigner in the United States for an agreement on nuclear weapons, now turns his attention to western academic perceptions of the Soviet Union.

He demonstrates that Soviet studies in the United States in the first quarter of a century after the Second World War were strongly influenced by the malign influences of external cold war and internal McCarthyism. Most academic funds were provided by the American government and its armed services; the international but British-based journal *Soviet Survey* (now *Survey*) was indirectly financed by the CIA. Professor John Hazard, an objective and highly respected scholar, who studied Soviet law in Moscow in the 1930s at Roosevelt's suggestion, was branded in 1953 as "a member of the Communist conspiracy" by McCarthy personally, together with Ernest Simmons, leading American specialist on Soviet literature. As late as 1977 all contributors to the widely-read bimonthly *Problems of Communism*, published by the US Information Agency, were secretly security-cleared before their writings could appear! Those British scholars who do not write for this journal will now regard those who do with greater awe.

Professor Cohen plausibly argues that an important part in producing conformity among Soviet experts. For a quarter of a century after the Second World War almost all American political scientists and historians agreed that the Soviet Union was a totalitarian society, which had inexorably evolved since the seizure of power by the Bolsheviks in 1917. Under Stalin a monolithic terroristic party-state ruled omnipotently over a passive, frozen society; and after Stalin's death this system was merely modified in minor respects. All Sovietological theories, the American sociologist Daniel Bell wrote in 1958, were "designed to shape the behaviour of the free world in its opposition to Communism", while a leading academic administrator declared that "any objective study of the Communist-dominated world is rendered impossible if the supplemental goal is to promote mutual understanding". As late as 1967, there was only one poor lone participant at a Harvard conference who did not regard the Bolshevik revolution of 1917 as a disaster.

The consequences are still with us of the predominance in the United States of the totalitarian doctrine. Two devoted exponents of the doctrine, Professors Zbigniew Brzezinski and Richard Pipes, were respectively appointed as advisers to Presidents Carter and Reagan in 1976 and 1980, and strongly influenced the official American image of Soviet reality.

Professor Cohen's indictment of what he somewhat inelegantly describes as the "politicization of Sovietology" is impressive, disquieting and just. But he pays insufficient attention to significant countervailing trends. He acknowledges that economists and demographers suffered less from harmful political influences, but virtually ignores their work. The detailed sectoral studies of the Soviet economy by the RAND Corporation were careful and objective, and contributed immensely to our knowledge. This quantitative research was financed by the United States' Air Force, and was no doubt indirectly of military value. But simultaneously major studies by individual scholars provided profound insights into the Soviet system. In 1954, in the midst of the McCarthy years, David Granick published his book on Soviet industrial mangers under Stalin, which explicitly showed that Weber's concept of bureaucracy did not explain their behaviour and functions. Similar studies by other independent American scholars implicitly but effectively exploded the hypertrophied claims of the totalitarian hypothesis.

Moreover, Professor Cohen has almost nothing to say about Soviet studies in other western countries. There were some parallels with the United States, particularly in West Germany, where former advisers to the Nazis played a prominent role in the first twenty years after the war. In Britain, the academic community had to swallow a small dose of McCarthyism. E. H. Carr failed to be elected to chairs in London and Oxford, and to a fellowship at Balliol, and it was difficult for younger scholars sympathetic to the Soviet Union to obtain academic posts. A notorious speech by Lord Vansittart warned about the communist menace in Birmingham University. But contending schools of thought flourished in Britain, even if they did not always speak to each other.

In 1949, with the cold war fully under way, the quarterly journal *Soviet Studies* began publication in Glasgow University, edited by two idiosyncratic Marxists (one of them, Rudolf Schlesinger, who was expelled from the Soviet Union and the Austrian Communist Party during the Great Purges, burst into my office in Glasgow after the publication of Khrushchov's de-Stalinization speech in 1956, proclaiming "I am completely rehabilitated and will pay twenty years' back party dues in inflated Chinese yen!"). Before Stalin's death reports and articles in *Soviet Studies* were presenting the USSR as a dictatorship, but one which was multifaceted and even quasi-pluralistic. This anticipated – and certainly directly influenced – the Canadian and United States' work which broke the totalitarian mould. The totalitarian school, Professor Cohen traces the emergence of "revisionism" in the United States, first in political science and then in history, in the 1960s and early 1970s, when improved Soviet-American relations and major internal changes in the Soviet Union together undermined "Sovietology's gray stereotypes". In political science, the revisionists treat the Soviet Union as a society in constant change, in which factions, bureaucratic networks and elites compete for influence. In history, according to Professor Cohen, they reject the notion that there was "an unbroken continuity between Bolshevism and Stalinism", and insist on examining the historical alternatives to Stalinism. "The Bolshevism of 1917-28 did contain important 'seeds' of Stalinism". Professor Cohen concedes, but "Bolshevism also contained other important, non-Stalinist 'seeds'"; the origins of Stalinism may also be found "in Russian historical and cultural tradition, in social events such as the civil war, in the international setting". So far, so good. All historians who work on Soviet history must be revisionists to this extent.

Stalin lying in state, March 1953

outside the orthodox totalitarian tradition would reject the simplistic view of Professor Merle Fainsod that "out of the totalitarian embryo would come totalitarianism full-blown". The notion of "historical alternatives" presents awkward methodological problems; but certainly all would agree that a "multi-factoral" analysis of Stalinism is needed, and this is probably another [illegible]

But Professor Cohen goes much further. He insists that "excesses were the essence of historical Stalinism", and that true revisionism requires the historian to commit himself to an outright condemnation of Stalinism in all its aspects. Moreover, he even appears to believe that true revisionists must accept his own view that Bukharinism was the viable alternative to Stalinism: he writes of a growing consensus among historians that "a range of possibilities" was open to the Soviet leadership in the late 1920s, "all of them within the parameters of NEP and consistent with the alternative policies that Bukharin and his allies put before the party".

This is a tenable proposition. But its elevation to what amounts to a new orthodoxy results in a strange distortion in Professor Cohen's appreciation of some of his prominent fellow-historians. E. H. Carr and Isaac Deutscher might seem in essential respects to be what might be called "premature revisionists", and thus Professor Cohen's natural allies. Carr rejected "cold war" approaches to Soviet studies, and in his own history did not treat Stalinism as inherent in Bolshevik ideology, but attributed its triumph to such factors as the backwardness of Russia and its international isolation. Isaac Deutscher broadly took the same viewpoint, and was strongly sympathetic to Trotsky's alternative to Stalin. But Carr and Deutscher also believed that Lenin's revolution would have [illegible] revolution from above", and that in some sense the Stalin period continued as well as distorting the Leninist tradition. This leads Cohen to discover an "implicit consensus" between "the mainstream cold war scholarship and the counterschool of Carr and Deutscher". He also views with suspicion younger historians, including Sheila Fitzpatrick and Arch Getty, because they "tend to emphasize what they consider to have been modernizing or otherwise progressive developments" under Stalin while "minimizing or obscuring the colossal human tragedies". "Such elliptical scholarship," according to Professor Cohen, "is not real scholarly revisionism."

In a significant footnote, Professor Cohen politely hints that Alec Nove, while "more balanced", also suffers from this defect. Scholars whose estimates of the human casualties of Stalinism are lower than the extraordinarily high figures accepted by Professor Cohen are equally condemned. In the heat of the anti-Stalinist polemic, Professor Cohen even wonders rather uncharitably whether the "unfortunate trend in the new scholarship" derives from "an unstated *political* desire to rehabilitate the *entire* Stalin era" (my emphasis).

Professor Cohen's rules for full membership rights in his revisionist club are too exclusive. Carr, Deutscher, Nove, Cohen, Fitzpatrick and Getty all form part of a single historical tradition in the study of the Soviet Union. This tradition seeks to understand that huge, awkward and complex land and its regime, its tragedies and its triumphs, rather than to impose a sterile and politically-biased framework on the evidence. It cannot be denied that all these historians also share a broad political framework, believing that it is essential and possible for the West to find ways to live in peace with the Soviet regime; they approach the object of their study with empathy if not with sympathy.

This much broader revisionists' club would have surprising candidates for membership. In an important recent article in the *New York Review of Books* on "The Hopes for Gorbachev", Mr Peter Reddaway, whose passionate advocacy of the cause of the Soviet dissidents over many years sometimes seemed almost stridently anti-Soviet, analyses conservative and reformist trends in Soviet society. His diagnosis, though it somewhat exaggerates Soviet defects and disorders, broadly agrees with Professor Cohen's, and his prognosis is cautiously optimistic. Mr Reddaway adds the important proviso that major reforms will not be introduced in the Soviet Union until "potential neo-Stalinist opposition to them has been neutralized by progress in arms control", and suggests that "the Reagan administration should bear this point in mind as it prepares for the November summit meeting". In similar terms, Professor Cohen concludes his stimulating and valuable study by drawing the lesson that "cold war relations abet conservative and even neo-Stalinist forces in Soviet officialdom", involving "an inadvertent but perilous axis between their hard-liners and ours". I heartily concur, though I suspect that prominent members of the Reagan administration want to prevent successful reform in the Soviet Union, and will therefore draw quite different conclusions about the desirability of arms control. But if President Reagan and his advisers cannot yet be regarded as practitioners of "real scholarly revisionism", I would urge Professor Cohen to admit Mr Reddaway as a probationary member of his club, and to offer posthumous membership to Carr and Deutscher.

R. W. Davies is professor of Soviet economic studies at the University of Birmingham and author of a multi-volume history of the 1930s, "The Industrialisation of Soviet Russia", the third and fourth volumes of which have just been completed.

Discarded drama

Russian Drama from its Beginnings to the Age of Pushkin
by Simon Karlinsky
University of California Press, £35.50
ISBN 0 520 05237 4

In Professor Karlinsky's view the period 1670–1820 is both a misjudged and a neglected one in the history of Russian drama. Those responsible for this state of affairs range from the 19th-century Russian critic Belinsky whose dismissive views have influenced many, both Russian and western, to Professor Karlinsky's fellow countryman Nabokov. The latter, chides Karlinsky, "exposes typically 19th-century hostility and contempt for the neoclassical heathen". While most histories of Russian drama in English are usually only palatable as reference works this account invites reading as a whole. The author is well aware of the pitfalls – the awkwardness of fitting in endless plot summaries, for example. He apologizes for this, unnecessarily as it turns out: they are the very stuff for countering the ignorance and neglect of which he complains.

Professor Karlinsky's "guided tour" begins with a lucid account of the religious and courtly beginnings of Russian drama in the 17th century then surveys neoclassical tragedy, and the various comedic forms (verse comedy, sentimental drama and comic opera) popular in the mid-18th century which mark Russia's initiation into contemporary western theatrical fashions. Here he draws attention to the novelty and verve of Russia's first original comic dramatist, Fonvizin.

The exposure of the derivative character of the contemporary theatrical context and the deft dismantling of prevalent Soviet views of Fonvizin as abolitionist and libertarian are both major contributions to writing in English on this key figure of the early Russian theatre. The greatest value of the book however lies in the reassessment of the period 1780–1820, the heyday, first of tragedy and then of verse comedy. He names Ozerov, Shakhovskoy and Khmel'nitsky as the forgotten popular writers who provided the theatrical education of the great dramatists to come.

Griboyedov's *The Misfortune of Being Clever* (1824) owes much to the patterns already established in the verse comedies of these last two writers. Professor Karlinsky's well-researched essay on this play shows how easily the protagonist Chatsky's "individualistic defence of the exceptional and talented against the dull-witted herd" lent itself to the purposes of the growing oppositionist spirit post-Belinsky, and to the extremist views of some Soviet critics who have seen it as little more than Decembrist propaganda. The Decembrist revolt interrupted plans for its performance and publication, which was not achieved in full until after mid-century.

When we reach Pushkin, Karlinsky's tour brings stimulating, if unexpected, insights. He dwells not on Pushkin's drama or dramatic theory, but on his prose and verse, though there are vignettes on each of the plays, or play fragments. In the light of the popular entertainment medium of verse comedy some of Pushkin's works assume a new emphasis. For example, *The Tales of Belkin* can be viewed as ironic reworkings of the themes of sentimentalist and neoclassical comedy; and here Professor Karlinsky pays his due to the best Soviet critics, to the early work of Bondi, to Alekseyev, Gippius and Akhmatova.

Professor Karlinsky's evident enthusiasm for his material does not blind him to its sometimes poor literary worth. The passages that are quoted (sensibly limited and mostly in verse) are given in tandem with translation and honest comments. He is not afraid to point to the unwieldy style of the originals, or at the other extreme to the vivid freshness of the language for the Russians when plays were created for the first time in their native tongue.

Repeated challenges to prevailing views on early Russian drama enliven the text, and provide some engaging footnotes, which on occasion are more fascinating than the account of the drama itself. This is especially so when Professor Karlinsky invites comparison of assessments written at different periods of Soviet power, or when he writes sensibly on the misunderstanding of Russian writers by the West.

This book makes a convincing case for the discarded plays of the early period and for their influential role in the formation of the acknowledged classics.

Cynthia Marsh

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BOOKS

Going into residential care

Home Truths: old people's homes and the outcome of care
by Tim Booth
Gower, £18.50 and £8.95
ISBN 0 566 00975 7 and 00976 5

Children's Homes
by David Berridge
Blackwell, £16.50 and £7.50
ISBN 0 631 141367 and 141375

For too long, attitudes to homes for children and old people have been excessively influenced by the general critique of institutions, of which Erving Goffman (1968) was the prime exponent. Although this literature has been valuable in drawing attention to the destructive elements in institutional life, its impact has been so powerful emotionally that generations of students and teachers have viewed all such provision in a predominantly negative light. Furthermore, while a generic approach to the study of institutions imparts much that is instructive and enlightening, it should be balanced by an understanding of the particular needs of different client groups, which necessitate very different regimes and pose different dilemmas for staff. These studies by Tim Booth and David Berridge contribute to this understanding.

In his survey of 175 old people's homes Booth sought to answer the questions: Are the deleterious effects of residential care an inevitable feature of institutional life? Do some types of institutional regime have more damaging effects than others? Do institutional environments affect different residents in different ways? His chosen mode of research provides a wide angle rather than a detailed close-up view of residents.

He completed the first survey of 6,947 residents (by means of questionnaires completed by officers in charge) in the spring of 1980. He repeated it 12 months later covering 7,024 residents in the same homes and again the following year covering 691 residents. Booth found that a substantial number of elderly people in the homes were *not* so incapacitated as to require this form of care; and that the burden of care on residential staff derived very largely from the demands of a minority of severely dependent residents. He also found that different types of regime had only a marginal effect on the functioning of residents. Regimes that allowed residents less freedom were no more likely to increase their dependency on others.

The findings critically depend upon the utility and validity of the postal questionnaires. Recognizing the dangers of this Booth has provided some verification of the reliability of the respondents. Certainly the candour and diversity of the responses support his view that, even in sensitive areas, the respondents have not sought to present an artificially rosy view of their establishments. By adopting this questionnaire method, Booth has been able to inquire about a very large number of residents in a large number of homes, which increases the general reliability of statistical inference. Certainly his method seems appropriate to assessing dependency levels and has produced findings which challenge the conventional wisdom about the increasing dependency of the majority of old people in homes.

On the question of the relationship of type of regime to the residents' dependency the methodology is more open to question. Booth has inquired only about the quality of care in the homes, not quality of life. He discusses, rather briefly, the difficulties of obtaining and assessing information directly from elderly people about their levels of satisfaction. But there are other ways which he did not try, such as structured observation and staff reporting. Old peoples' well-being is not identical to, or inseparable from, their level of dependency, measured on concrete "objective" criteria, such as continence and mental alertness. Their response to the regime cannot, therefore, be inferred from their dependency level. The unique needs and wishes of individual residents cannot emerge from a study such as this, nor is its methodology sufficiently sensitive or refined to provide definitive answers to the question – what differences do regimes make? Taken as a whole, this book is a rich source of provocative information and argument. The literature reviews of such issues as the assessment of dependency and institutional regimes are quite excellent and will become standard reading for professional students and researchers.

David Berridge also sets out to explore an important (and neglected) type of residential care – the small childrens' home, provided for children and young people whose career has *not* been defined as delinquent and who have not found themselves in the much researched "community homes with education" (formerly approved schools). It has long been a surprise to me that so little research attention has focused upon these homes, which in 1980 provided care for some 20,000 children and young people. (It seems likely the number has fallen quite significantly in the past few years.)

Berridge investigated twenty homes, spending a week in each. The book is a readable, useful account of residential care at the present time. Berridge deals with the characteristics of the children and young people – confirming, for example, the general trend towards increased numbers of adolescents in residential care and fewer young children. He discusses "the staff world", drawing attention to the inadequacy of the present level of education and training. These, however, are familiar themes and the research throws little new light on them. His attempt to construct a typology within the broad group of children's homes is more useful. He suggests that there are three types, "the family group", "the adolescent hostel", and "the multi-purpose home", and that there are problems when children and young people are misplaced within these groups.

Despite its utility, I was disappointed in Berridge's book, for it was difficult to see what he had gained from living in the homes. One imagined that the choice of such a research method would involve participant observation as well as interviews, but much of the material in this book could have been obtained by formal structured interviews or even questionnaires. Despite references to the care taken in the formation of relationships we have no sense of the researcher "being there" except in the case studies of three individuals. There is no discussion of the dynamics and interactions in the homes and this is a golden opportunity missed. I can recommend the book as an introductory text for those studying child care practice but as a piece of research it adds little to present knowledge.

Olive Stevenson

Olive Stevenson is professor of social work studies at the University of Nottingham.

Praxis for social work

Social Work and Social Philosophy: a guide for practice
by Chris L. Clark with Stewart Asquith
Routledge & Kegan Paul, £12.95 and £5.95
ISBN 0 7100 0610 0 and 9630 5

The Essential Social Worker: a guide to positive practice, second edition
by Martin Davies
Gower, £15.00 and £6.95
ISBN 0 566 00985 4 and 00986 2

It says much about the social work profession, if profession it be, that systematic examination of its often competing philosophical assumptions is rarely encouraged. "Too often," on social work courses, this rich and complex territory is bypassed with only the most cursory of uncritical nods in the direction of such values as "respect for persons" or "client self-determination". This is a sorry state of affairs and one which Chris Clark and Stewart Asquith, lecturers respectively in social work and social administration at Edinburgh University, have now attempted to redress, albeit with somewhat mixed results.

Social Work and Social Philosophy covers (or, more accurately, touches upon) a wide acreage of well-furrowed ground. The authors' difficulty, despite (perhaps because of) their fair-mindedness and admirable lack of condescension, is that of adequately compressing such diverse concepts as the person and moral agency, rights, self-determination, paternalism and authority, moral and political theory, professional ethics and ideology into a book of barely one hundred and twenty pages. Their use of a thematic approach, which traces moral and political problems from the sphere of the individual to that of the social and then back to the specific area of social work, is a partial solution but the constraints of length are often frustratingly apparent. No discussion of social justice, for instance, which omits reference to Hayek can be judged as adequate. Nor is it helpful to confine Cranston's work on rights to a brief paragraph. Tilmuse's treatment of altruism, too, is conspicuously absent.

But if selectivity is inevitable book's strengths are to be found where its authors allow their own opinions to come to the fore. For example they offer a trenchant criticism of the code of ethics drawn up by the British Association of Social Workers, a document which, couched in the language of professional description rather than moral prescription, "fails to provide [ethical] guidance precisely at the point where dilemmas specific to the practice of social work arise". Their response to this, and to social work's more general failure to provide an overall professional philosophy, lies in a useful – if not yet fully developed – reworking of the concept of "praxis". Drawing on the work of Habermas, they do not argue that social work philosophy needs to overcome its traditional separation of the areas of morality, professional knowledge and practice and they suggest a number of basic principles from which such a "praxis" could be achieved.

Philosophy is so far from Martin Davies's concerns in his revised edition of *The Essential Social Worker* as to be altogether ignored. Indeed Davies would no doubt be as sceptical of the worth of philosophy to social work as he is that of sociology and psychology. Not that his book lacks an underlying philosophical basis; on the contrary, it is suffused with the spirit of utilitarianism. But while one can criticize this scepticism there is no denying that social work can be perfectly well practised without formal reference to philosophy. Davies is concerned with day-to-day practice and the great merits of his uncomplicated book are its reliance upon a professionally informed common sense and its insistence that social work be understood within a context of consensual politics and accepted definitions of social order. Given the political ideologies of some workers, not to mention some of their *maitres à penser*, such insistence is likely to prove controversial.

Davies sets out, in part, to debunk a number of social work myths, most important of which is the belief that social workers, whether in the guise of Marxist revolutionaries or of Freudian therapists, are primarily agents of [illegible] emphasis on a change perspective is not only unjustified and misleading . . . it is and has been counterproductive for the client." This is refreshing stuff, but if not, or at least not much, "change", then what? Davies's central argument is that the social work role is essentially one of "maintenance". "Through the exercise of control over deviant members (of society), the allocation of scarce state resources and the provision of a wide range of supportive strategies, the social worker contributes towards both the maintenance of society and the maintenance of individuals in society".

The implications of this thesis are far-reaching. In the first place it entails that the legitimacy of day-to-day practice has its source, not in the individual worker's belief in social justice or egalitarianism, but in the political sanction of elected governments. Secondly it implies that authority and control are as much the tools of social work as the exercise of compassion and care.

Against this background Davies places the myriad functions of social work including work with the elderly and handicapped, the development of interviewing skills, the use of child abuse procedures, community work, the role of "patch" systems, and much else besides. *The Essential Social Worker* is clearly and enthusiastically argued and should occupy a central place on those courses concerned with [illegible] rather than the myths of [illegible] to have such myths reinforced" Davies, with characteristic candour, advises that they "turn elsewhere for their shot of reinforcement; there are many alternative social work writings that provide it in full some measure." Alas.

David Dale

David Dale is a social worker for Westminster City Council.

Violence within families

The Politics of Child Abuse
by Nigel Parton
Macmillan, £20.00 and £6.95
ISBN 0 333 36316 7 and 36317 5

Nigel Parton's book places child abuse in its political context. He does this by tracing how society has come to conceive of child abuse as a problem and by analysing the ways in which the definition of the problem has structured developments in policy and practice in a changing political economy. In this task he is largely successful, although his suggestions for reformulating policy and practice are less convincing.

The book provides the most comprehensive account to date of the discovery and identification of child abuse and its consolidation in Britain as a social problem. Parton demonstrates the sectional interests, particularly those of the National Society for the Prevention of Cruelty to Children and segments of the medical profession, served by the process and identifies the societal reaction to the case of Maria Colwell in 1973 as crucial in establishing child abuse as a matter of pressing political, professional and popular concern. Parton links these developments to changes in the political economy, particularly the rise of the new right. He suggests that the Colwell case provided a focus for anxiety about a growth in violence, a decline in social discipline and morality, a threat to traditional family values and a growing disenchantment with state welfare, including social workers. The vital role played by the media is explored but Parton does not establish precisely why *this* case attracted such exceptional publicity at this particular time, when earlier child deaths had passed almost unnoticed.

In the course of this analysis Parton emphasizes the "moral panic" associated with abuse and a style of child welfare practice, characterized by coercion and statutory measures of control. However not all would see developments in social work in the 1970s as so uni-directional. Research by Dingwall and his colleagues revealed a preference for *non*-coercive intervention in child abuse (their so-called "rule of optimism") and several local authorities have developed strategies which try to keep children out of statutory care.

In a critique of the conception of child abuse as disease, Parton demonstrates how little is known about the characteristics of abusers, the efficacy of treatment or the possibilities of prevention and prediction. He refers to a wide range of research studies and one of the strengths of the book is its comprehensive bibliography. Parton is more sympathetic to a social structural analysis of the problem and he explores both the greater incidence and detection of child abuse among poor families and the endemic nature of conflict, tension and violence in families.

His final chapter explores the reformulation of policy and practice in the light of this analysis. He advocates a new form of relationship between the family and the state and collectivized child care in a socialist society, but there is little indication of how such a transformation would occur. Short of that, a primary prevention policy to improve the social and economic position of children and families is outlined, including improved child benefit and more day care.

There is a case for attacking deprivation in poor families. However a policy of preventing child abuse may not be the most compelling reason for so doing, especially since, despite their greater surveillance by welfare agencies, it appears that child abuse, as conventionally and narrowly defined, occurs in only a minority of poor families. Part of the problem is that Parton is not specific about what precisely he is aiming to prevent. He writes: "in attempting to meet the needs of all children and families and not just the selected few we can be more assured that we will be tackling the problem at hand." But the whole burden of the earlier analysis is that there is not one problem but several: the nuclear family as a conflict-prone institution; a greater likelihood of injury and harm to children in poor families; and a host of other ways in which society and its institutions abuse children which may be, but are not always, class-related. Policy prescriptions, especially preventative ones, require greater clarity about the nature of the problems and the objectives for change.

Some will regard this as a controversial book. It is informative and compelling, despite some inelegancies of style. It is an important study not only of child abuse but also of the sociology of a social problem.

Christine Hallett

Christine Hallett is lecturer in social policy at the University of Leicester.

Routledge & Kegan Paul have published at £24.95 the 1984–5 volume of *The Yearbook of Social Policy in Britain*, edited by Maria Brenton and Catherine Jones.

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BOOKS

Moments of true tragedy

The Tragic Plane
by H. A. Mason
Clarendon Press: Oxford University Press, £17.50
ISBN 0 19 812843 6

H. A. Mason contributed a number of essays to *Scrutiny* and this unconventional and vigorously argued treatise on tragedy is the fruit of study, teaching and reflection carried on over many years. His inquiry parts company from many others at the very beginning, since he claims that there is no definition of tragedy which enables the reader to distinguish which plays are truly tragic and which only nominally so. We cannot reach the tragic, he contends, unless we have pre-imagined it: it can only be perceived if it rouses ideas already slumbering in the reader's mind.

This approach leads him to identify tragic situations in literature rather than complete works. Tragedy offers us transcendental truths, truths such as cannot be verified by ordinary experience: "yet the most valuable moments in our deep response to tragedy are moments only" – hence we should not attempt to convert the tragic vision into a theological or metaphysical one. In particular he attacks the view that tragedy can be seen as the connected history of a literary genre, which had its roots in primitive ritual, first achieved artistic realization in the plays of Aeschylus, and thereafter evolved in increasingly sophisticated forms through [illegible] and beyond Shakespeare. This evolutionary heresy imported into the literary sphere through the influence of books such as *The Origin of Species* and *The Golden Bough*.

It is in Homer's epics, he maintains, that we first find the capacity for creating tragic figures. Here and with the Greek tragedians we see the interaction of the human with what could then be termed the divine, and now the universe of the spirit. But supreme tragedy, the argument runs, is not concerned with the destruction of qualities such as love or trust, but with that of the bonds which hold society together, the links between blood-relations or king and subject: three of the dramas which are cited as embodying situations of supreme tragedy are *Antigone*, *Oedipus Tyrannus* and *King Lear*.

Discussing the nature of the tragic act – Aristotle's *hamartia* (tragic error) – he submits that the Greeks through lack of an appropriate vocabulary portray the doer of the deed as at once accountable and not accountable. Here the examples chosen are *Macbeth* and Sophocles's *The Women of Trachis* (in which Deianeira unwittingly kills her husband), and the analogy – on the face of it surprising – is that the killer becomes the victim of a malignant invading power, which possesses his or her whole being. The great age of Greek tragedy coincided with a period when society was replacing a tribal with an individual framework of conduct, and it is arguable that Aristotle by attempting a rational definition of the hero's responsibility shows himself unable to picture what a tragic figure represented to his ancestors.

The crucial chapter is that entitled "The Tragic End". This examines Aristotle's contention that a tragedy must embody a *complete* action (the beginning-middle-end formula), and demands an end which is final, so that for the hero there can be no hereafter. This implies a clear distinction between art and life, since the latter does not present us with such an abrupt cut-off of experience. Here Bradley is aptly quoted to the effect that the tragic world deals with no final reality, but only part of it, which we consent to accept as the whole: the author concludes that the essentially tragic element does not run through a play like the core of a length of Brighton rock, but that the dramatist may sacrifice consistency of plot or psychological probability for the sake of locally intense dramatic impact, and hence that a tragedy, contrary to Aristotelian doctrine, is not a complete organism with an inevitable climax. The end of tragedy is not the most tragic moment because it is the end, but because of the unexpected visitation of a supervenient spirit, which may descend elsewhere: thus it is not present at the end of *Macbeth*, and it makes itself felt in the speeches of Cassandra long before the end of the *Agamemnon*. This argument culminates in the paradox that we may enter a universe of infinite depth in a passage which, theatrically speaking, may occupy less than a minute.

The book is not helped by its Socratic mode of discourse, which buttonholes the reader and takes him through many digressions and backtrackings on an elaborate quest which defies any brief summary. This is a reductive study in the sense that it does not examine the strikingly different and idiosyncratic literary forms which tragedians have adopted down the ages, nor the contribution of poetry to the medium. The approach suggests at times that of a metallurgist: tragedy is analysed like a piece of quartz in which the concentrations of precious metal are tracked and identified rather than the structure studied as a whole. But it is a consistently stimulating inquiry, which shakes up many received ideas on the subject.

Ian Scott-Kilvert

Ian Scott-Kilvert was formerly director of literature at the British Council.

Evelyn Waugh with his unsmiling family at Combe Florey, 1960; a picture from Harold Oxbury's *Great Britons: twentieth-century lives* (Oxford University Press, £14.95).

Writers stepping inward

The Inner I: British literary autobiography of the twentieth century
by Brian Finney
Faber, £14.95

The current attachment to autobiography among practising writers, general readers and academic critics is not in doubt. Evidence ranges from the recent lament by the Marxist critic Edward Said that, inside and outside the academy, autobiography enjoys too much attention, through the regular publication of episodes of their lives by senior writers such as Grahame Greene and Stephen Spender, to the recent success of *Truth, Dare or Promise*, a collection of women's autobiographies published by Virago, whose original print run of 7,000 was exhausted within weeks of publication. Autobiography has even entered the gates of that city of theory, New Left Books which has published the best of recent autobiographies, Ronald Fraser's *In Search of a Past* (Verso). That *The Inner I* is published by Faber, a noted publisher of modern literature, rather than by a specialized university press, is further evidence that autobiography is migrating from the periphery towards the centre of contemporary literary life.

In *The Inner I*, the first study devoted exclusively to 20th-century British literary autobiography, Brian Finney has sensibly sought a middle ground between an exhaustive account of a very small number of works and a general survey. He writes about just under thirty works, a welcome breadth of reference, in elaborating his general argument. For him, subjective autobiography, that in which attention is centred on the self, is the distinctively 'Truth', the first of the two sections, interrogates the epistemological status of autobiography, its interplay with fiction, showing how even those autobiographies which most explicitly offer themselves as transcriptions of reality are shaped by literary forms and conventions. "In Search of Identity", the second section, maps some of the principal ways in which autobiography has been transformed by the discovery of the unconscious. The last two chapters widen the discussion and are devoted, respectively, to autobiographies which emphasize the centrality of "spiritual vision" and those which point to the dialectic between self and history. Autobiographers discussed in this second section include Edmund Gosse, Robert Graves, John Cowper Powys and John Osborne.

In an argument which employs psychological and sometimes psychoanalytic vocabulary and which emphasizes subjectivity and the unconscious, the virtual absence of discussion of any autobiographies by women and the neglect of gender as a determinant of subjectivity and of writing are startling. Although Freud is referred to, there is no awareness of what he discussed: the different psychosexual development of male and female children. Chapters devoted to childhood and to parents and children draw simply on the autobiographies of men.

If subjectivity is one of the organizing principles of the argument, "literary" as the subtitle of the book shows is the other. For Brian Finney, a literary autobiography is not a work with [illegible] properties which can be identified, but an autobiography written by a novelist, poet or playwright. His distinction is between literary autobiographies and autobiographies which are "important personal contributions to social, political and military history". This severe distinction means that even though the autobiographies of Arthur Koestler and Stephen Spender are discussed in a chapter called "Self and History", there is no serious awareness of their relationship to a wider cultural and political history and no grasp of their ideological implications. Published at the height of the cold war by Hamish Hamilton, publisher of *The God That Failed* and an advocate of better Anglo-American relations, Koestler's and Spender's autobiographies are two of the numerous autobiographies written around that time by male ex-communists. What better literary form could there be for the ex-communist who wished to celebrate the English liberal belief in the autonomy of the individual and to denounce what he understood as the communist denial of *the agency of the self*?

This history in which autobiographies are written as well as the subjectivity articulated within them are more complex matters than *The Inner I* allows. Brian Finney has written a lucid and accessible study which will serve as an introduction to its subject, but which leaves too many of the important questions it raises unsatisfactorily answered.

Philip Dodd

Philip Dodd is lecturer in English at the University of Leicester.

Chaucer's plans

The Textual Tradition of the Canterbury Tales
by N. F. Blake
Edward Arnold, £25.00
ISBN 0 7131 6448 4

We do not have Chaucer's autographed manuscript of the *Canterbury Tales*. Our earliest copies date from soon after his death in 1400. The manuscript used for standard texts of the poem is Ellesmere, a finely-produced copy (the one with the portraits of the pilgrims), now in the Huntington Library, California. In recent years, however, Hengwrt, from the national Library of Wales, has been coming up fast on the rails. It may be up to ten years earlier than Ellesmere, its spelling and grammar are probably close to Chaucer's, and it is the copytext for Professor Blake's own edition of 1980 and for the new Variorum Chaucer. Ellesmere had already been subject to editorial improvements; it contains a series of minor changes which result in a smoother text than Hengwrt's.

Blake's theory is that Chaucer kept his own working copy in a very untidy state, with additions and revisions on separate sheets, and the whole insecurely fastened together. At his death these papers became more widely available and Hengwrt represents the first attempt to arrange the fragments into a sequence of tale-link-tale. Other early manuscripts produced other solutions. There is no radical modification to any tale, and tales firmly slotted into groups are not moved, although the position of the groups may be. Gradually some of the links between tales are expanded or adapted, marginal glosses citing sources or emphasizing moral passages are added (all these occur in Ellesmere). *The Canon's Yeoman's Prologue and Tale* and sometimes the *Tale of Gamelyn* are included to supply gaps left by an unfinished tale. The "Retraction" appears at the end.

This explanation is simpler than alternative theories. It removes the need to assume pre-publication of single tales in Chaucer's lifetime, for which there is no evidence. It has the great merit of concentrating on the textual tradition and avoiding the criterion of what is "Chaucerian". It deliberately raises several questions about Chaucer's method of composition. The collection *looks* unfinished, but it was known in Chaucer's lifetime, presumably by recitation. Did he have a masterplan – other than the pilgrimage? Were the tales composed with a teller in mind or was the already-written tale later assigned to a particular pilgrim? Or – heresy – did someone else revise parts of what he had written sufficiently well to make it sound Chaucerian? Was there a circle of scribes sufficiently knowledgeable about Chaucer's works and the condition in which he left them?

The going becomes harder in those chapters where Blake discusses some early manuscripts which are clearly non-starters in the competition for the choice of copytext. What he is doing, however, is to lay out a picture of how the text developed and for that we need all the evidence clearly and scrupulously presented. I am now fully convinced of the primacy of Hengwrt: *Gamelyn* can go: it is in a semi-alliterative rhymed metre and not fully assimilated into the plan. *The Canon's Yeoman's Prologue and Tale* continue to bother me. It is suggested that they were in process of composition but were not finished in time for inclusion in Hengwrt. Were these Chaucerian imitators as good as *that*?

S. S. Hussey

S. S. Hussey is professor of English language and medieval literature at the University of Lancaster.

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BOOKS

A diet of worms

Gulls and Plovers: the ecology and behaviour of mixed-species feeding groups.
by C. J. Barnard and D. B. A. Thompson
Croom Helm, £25.00
ISBN 0 7099 3230 8

Flocks of lapwings, accompanied by black-headed gulls and sometimes by golden plovers, are a familiar sight on winter pastures throughout Britain. It might easily be assumed that these birds spread out haphazardly across the fields and forage peacefully on an abundant source of their invertebrate food. As this impressively detailed book shows, however, this apparently idyllic scene is in reality one of struggle and exploitation, with the individual birds facing a number of critical problems of survival.

Lapwings breed on arable land, rough grazing and upland areas, but in winter most form flocks on lowland pastures where they feed mainly on earthworms supplemented by insects and other invertebrates, particularly in autumn and spring. Golden plover are upland breeders whose range extends further north into Scandinavia and the Soviet Union. Many winter in Britain, where they join lapwings and the predominantly inland black-headed gull in mixed flocks on temporary and permanent pasture.

Within the range of fields available, the birds are highly selective – choosing the pastures with the highest and most predictable densities of worms. Within fields, patches where worms are more abundant are also clearly preferred. *Exactly how this selection is achieved is not known in detail*, but lapwings alone seem to respond directly to some environmental cue; golden plovers then seem to use the presence of lapwings to indicate good feeding areas and the golden plovers in turn are followed to the feeding sites by black-headed gulls.

The authors use the feeding birds to test theoretical optimal diet models, which predict the selection of the most profitable prey – that is, the size-class which provides the greatest intake of energy or nutrients in relation to the time and effort expended in their capture and handling. Large worms obviously contain more energy than small ones, but this advantage is offset by their being less abundant, deeper in the soil, more difficult to extract and more likely to be stolen by other birds. As a result, small to intermediate worms are predicted to be the most profitable; and these are indeed the sizes most commonly selected by the birds from the sizes available to them. However, as in most tests of prey selection models, the quantitative fit between prediction and observation is not exact: birds take a much wider range of sizes than would be expected if they were to select only the most profitable sizes. They also continue to take unprofitable worms even when profitable ones are abundant, a further departure from the predictions of the model which the authors ascribe to problems in prey recognition and to partial preferences – thus following an established tradition of ad hoc explanations for lack of fit rather than a more radical rejection and reappraisal of the model.

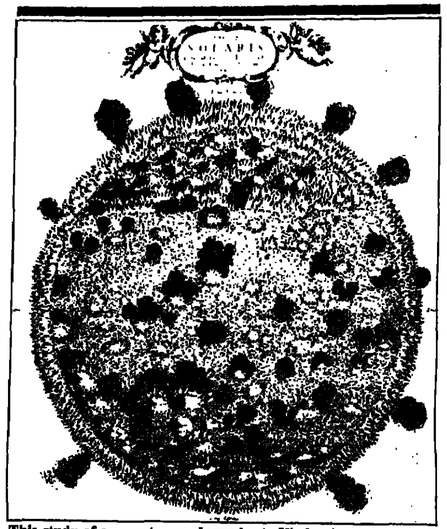
By careful measurement of food intake under different environmental and social conditions, the authors are able to calculate energy budgets for the plovers and find that they are sometimes unable to meet their requirements by day and are forced to continue feeding into the night. Similar calculations allow prediction of flock dynamics by suggesting when it would be profitable for individual birds to join or leave a flock so as to maximize their food intake. Aggression between birds is an important factor in reducing feeding rates, especially in high-density groups on parts of fields with high densities of worms.

The role of black-headed gulls in the mixed flocks is given special attention, as these birds rarely search for their own worms but live by kleptoparasitism – by stealing food from plovers. Lapwings, however, are the preferred victims, probably because they seem less able to detect approaching gulls and are less agile than golden plovers when being chased. The plovers understandably take a number of countermeasures against gull attack, by moving away from them, forcing gulls to shift position frequently and by turning their backs on nearby gulls so as to hide their prey. The gulls' relationship with the plovers, however, is not entirely exploitative: because they are continually scanning for victims, they are more vigilant than their host species and are therefore more likely to respond to approaching predators. The plovers clearly use the gulls as indicators of potential danger, *[illegible]*

Although this approach is largely descriptive, the book thus reveals a very complex set of interactions within what at first sight might seem to be a simple situation. The details, however, are carefully explored in a logical sequence, which is placed in the context of the functional significance of flocking in an extensive review in the first chapter. Although the ideas, findings and conclusions are expressed clearly and simply so as to be accessible to the general reader, the book is intended mainly for the specialist. Moreover, as it is very much a report on one particular study, it has the stylo of an extended scientific paper: many of the data represented (perhaps inevitably) as large tables giving matrices of partial correlation coefficients and results of multiple regression analyses, which are likely to be familiar only to the professional scientist. For teachers, researchers and students in behavioural ecology, however, it should be required reading.

Ian Patterson

Ian Patterson is senior lecturer in zoology at the University of Aberdeen.



This study of sun spots was drawn by A. Kircher in *Physica Sacra* 1665. His drawings can be used to determine the differential rotation of the sun in the 17th century: no difference is discernible from the present rotation. The picture is reproduced in Herbert Friedman's *Sun and Earth* (Freeman, £15.95).

Limestone landscapes

Karst Geomorphology
by J. N. Jennings
Blackwell, £27.50 and £9.50
ISBN 0 631 14031 X and 14032 8
Limestone Geomorphology
by Stephen Trudgill
Longman, £12.95
ISBN 0 582 30011 8

Limestones form some of our most spectacular scenery and form the basis of many national parks, both home and abroad – notably the Yorkshire Dales and the Peak District in Britain and the recently designated Gunung Mulu National Park in Sarawak, the scene of the discovery of the world's largest caverns and passages. Bare limestone cliffs, gorges, dales, caves, clints and grykes, sink holes, springs, dry valleys, potholes, disappearing rivers and many other features attract our interest. But why are these features so different from those developed on other rock types? This is what has inspired these two authors, who have presented us with complementary texts in a field where there are few definitive books. Their approaches, however, are rather different.

Joseph Jennings, whose book is a rewritten and expanded version of his seminal *Karst* published in Australia in 1971, died in the final stages of compilation. His book, which was prepared for publication by Peter Bull and Andrew Goudie, is a fitting memorial to the doyen of karst studies. A Yorkshireman who emigrated in the middle 1950s, he had visited most of the great limestone areas of the world – from southern China to the Rocky Mountains, New Zealand to the Yorkshire Dales, the French Causses, and the Nullarbor Plain of southern Australia – from which he derives many of his examples.

The book thus reveals a very complex set of interactions within what at first sight might seem to be a simple situation. The details, however, are carefully explored in a logical sequence, which is placed in the context of the functional significance of flocking in an extensive review in the first chapter. Although the ideas, findings and conclusions are expressed clearly and simply so as to be accessible to the general reader, the book is intended mainly for the specialist. Moreover, as it is very much a report on one particular study, it has the stylo of an extended scientific paper: many of the data represented (perhaps inevitably) as large tables giving matrices of partial correlation coefficients and results of multiple regression analyses, which are likely to be familiar only to the professional scientist. For teachers, researchers and students in behavioural ecology, however, it should be required reading.

Although his approach is largely descriptive, Jennings has a keen appreciation of the theoretical nature of karst (and an odd early digression into pseudo-karst), he surveys the characteristics of carbonate rocks from soft chalk to the hard Palaeozoic limestones of the Pennines, to marbles and dolomites. Briefly, he discusses porosity, permeability, minor tectonic features, and physical strength: how, for example, does the roof span of Sarawak Chamber at 700 by 400 metres stay up without support? He then outlines the critical karst processes of solution and corrosion, subsidence and collapse in a chapter of only 14 pages.

Karst drainage systems are discussed more fully, particularly with reference to China, where large populations live entirely on limestones – with increasing complications for engineering and water supply as the Chinese become more industrialized. The following chapter on weathering processes in karst terrains and the resultant landforms is somewhat unbalanced with 14 pages on dolines (the surface depressions often known incorrectly as sink holes, swallows and so on), and only two pages on tower karst. This latter gives rise to spectacular scenery in tropical and sub-tropical regions, well known from the weird landscapes of old Chinese paintings.

In the two chapters on caves and their deposits (stalactites, stalagmites, and flowstone) Jennings highlights the important topics of uranium-series dating and of palaeoenvironmental history interpreted from dates, oxygen isotopes and palaeomagnetic studies. The book concludes with chapters on the significance of geological structure, climate and historical geomorphology. In all, Jennings has given us a very readable book, which has the hallmark of a good teacher: he makes us stop and think at frequent intervals and provides the basis for further study (the bibliography runs to 29 pages).

Stephen Trudgill takes a different viewpoint; he goes back to basic concepts and focuses on recent work on geomorphological processes as applied to limestone landscapes. At the same time, he presents clear definitions (indeed, he redefines many loosely-used terms) and classifications. Wherever possible, he uses quantitative evidence to support his deductions. Equations, graphs and diagrams abound; but in most cases the pictures speak louder than words. Like Jennings, Trudgill first looks at carbonate rocks (a more accurate term than "limestone", as a rock with 75 per cent carbonate can still have very little "lime" in its constitution) and the erosional processes which act on them. Strangely, however, he returns to "limestone dissolution" to emphasize that the process is really one of calcareous rocks dissolving in a solution containing carbon dioxide and its hydrous combinations.

The parts played by mixing solutions of different strengths, by the oxidation of sulphides in rocks to provide acids and by the oxidation of organic materials brought in by percolating waters, are carefully evaluated. Other processes of significance here are dissociation of molecules, the rate of reaction and mass transfer, and lithological and biological effects – the many controls on these processes liable to occur in limestone areas form a separate chapter. Trudgill then applies the results of his arguments to the classic aspects of karst geomorphology – dolines, uvalas, depressions, and the dissected coral limestones of Aldabra Atoll. Caves, and their features are again examined in terms of processes and controls. The second half of the book contains an examination of process and form in fluvial and coastal limestone landscapes; but glacial, arid and high altitude karsts get short shrift.

Throughout, there is a concentration on quantitative studies. Indeed, we are encouraged to think in terms of checking empirical concepts by careful measurement, or even of designing experiments to test hypotheses. Trudgill's approach is thus "scientific" as opposed to Jennings's "geographic". He provides us with some appendices on analytical methods (some a little outdated) and nine pages of bibliography.

Both these books should be on the shelves of anyone interested in limestones, their landforms, caves and underground water.

Trevor Ford

Trevor Ford is senior lecturer in geology at the University of Leicester.

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£14.50 Hardback 192pp 0-674-08047-5 (0857)
HARVARD UNIVERSITY PRESS 126 Buckingham Palace Road London SW1W 9SD

The world about us

The Cambridge Guide to the Material World
by Rodney Cotterill
Cambridge University Press, £17.50
ISBN 0521 246407

One of the things which scientists occasionally worry about is the rate at which knowledge is expanding. Alvin Toffler has popularized this concern in *Future Shock*, quoting Robert Hilliard as saying "by the time a child born today is fifty years old . . . 97% of everything known in the world will have been learned since he was born." If this is remotely near the truth, will it not soon be impossible for one man to grasp the breadth of the topics we call science? Not yet. After several delightful hours with Rodney Cotterill's *Cambridge Guide to the Material World*, I can confirm that at least one polymath survives.

Professor Cotterill has understood, better than most, the world of difference between "material" and "materials", for he explores the whole of matter, not just those materials which are treated (or even merely mentioned) in courses called "materials science". Thus, we find chapters on water as well as metals, on plants as well as crystals, and on animals as well as glasses. Throughout the text, the emphasis is on the atomic and molecular structure of the world about us, yet the examples selected for illustration are both familiar and diverse. Who would think to point out that the colours of red and blue bricks and arterial and venous blood are all caused by iron? Cotterill also reminds us that liquid crystal displays (on the front panels of hi-fi systems, for example) are not very new, as they have been worn by brightly coloured insects for thousands of years. And his homely examples of devitrification (the transformation from the glassy to the crystalline state) is that old toffee turns into fudge. Cotterill himself, however, has fudged very little. In every instance where I am competent to check him, he is both accurate and remarkably up to date.

Cotterill points out the essential unity of the natural world, wherein everything is composed of a mere handful of common elements. As nature is unaware of the boundaries between scientific disciplines, he explores many of the demarcation zones. He resists the temptation however, to label whole chapters with buzzwords of the 1970s and 1980s (no "semiconductors" or "molecular biology" here) and treats so many of these interfacial topics as part of the continuum of the material world.

There are some problems associated with the very success of Cotterill's achievement. He describes his book as a self-contained review for the non-specialist and has separated all mathematical material, most of the chemistry and all the colour illustrations from the main text. Thus, although the text is beautifully written, it presents information and concepts at an incredible density and must perforce be taken slowly. Most university science departments, however, would be quite happy if their incoming students understood only the contents of these few hundred pages (plus a little calculus).

Peter Goodhew

Peter Goodhew is reader and director of the Microstructural Studies Unit at the University of Surrey.

BOOKS

EDUCATION

Special cases

One in Five: the assessment and incidence of special educational needs
by Paul Croll and Diana Moses
Routledge & Kegan Paul, £12.95
ISBN 0 7102 0322 5
Schools, Pupils and Special Educational Needs
by David Galloway
Croom Helm, £14.95 and £6.95
ISBN 0 7099 1160 2 and 1175 0

Many of the hopes and expectations raised by the recommendations of the Warnock Committee in 1978 relating to children with special needs are still far from fulfilment. Nevertheless, the Warnock Report, followed by the Education Act of 1981, has certainly heightened general awareness of the issues involved in educating children with a wide range of difficulties and disabilities. In their different ways, *One in Five* and *Schools, Pupils and Special Educational Needs* are both valuable contributions to our understanding of these issues. *One in Five* is essentially a scholarly work aimed at reporting the results of a major research project as objectively as possible, while David Galloway's book, though drawing on a variety of research studies, is much more of a personal statement of strongly-held views on current policies and practices in assessing, placing and teaching children with special needs.

However, the two books have much in common, including a desire to show the complexities behind the now accepted concept of special educational needs, a focus on children presenting learning or behavioural difficulties rather than the larger group (up to 20 per cent) considered by the Warnock Committee to have special educational needs capable of being met in the ordinary classroom.

In *One in Five*, Croll and Moses give an account of a research project carried out by a team based in the school of education at the University of Leicester and supported by a grant from the Department of Education and Science. The project explored the ways in which junior school teachers identified educational needs and the methods of assessment they used. The sample was a substantial one, consisting of 428 class teachers, 61 head teachers and 37 remedial teachers in 61 schools in 10 l.e.a.s. in England. It is a credit to the research team that they chose to interview all the teachers personally rather than to use written questionnaires, likely to produce a very much poorer response, and that, additionally, they conducted a detailed observational study in 34 second-year classes in two of the l.e.a.s included in the original sample. In writing this book, Croll and Moses have justifiably opted for concentrating on presenting their findings rather than on the technical aspects of their investigation, which are briefly discussed in the appendix. They interpret these findings carefully, but more or less confine their personal views to this interpretation, only briefly spelling out some of the implications for practice. This approach has resulted in a coherent and readable work, if one which some teachers may find unexciting.

The book is closely packed with clearly tabulated data, which add to our limited knowledge of children with special needs in the age-range studied, and I can only highlight some of the many findings of interest. Nearly 19 per cent of pupils aged seven to 11 in junior schools are receiving special educational help, although [illegible] junior schools. Incidence varies among schools, but all schools have children requiring some special attention. Teachers' attitudes towards integration are relatively favourable, particularly towards children with physical and sensory handicaps. To a predominant extent, teachers explain special educational needs in terms of the child's innate qualities and the characteristics of the parents and the home, paying little regard to features of the child's educational context such as the quality and nature of the teaching methods used. Teachers spend much time in testing and assessment in junior classrooms, but not always to good effect.

Over half of the pupils nominated by their teachers as having special needs receive some sort of special help, but a substantial number of the identified pupils were not getting the help they required. Despite the availability of assistance from l.e.a. support services, the teacher in the ordinary classroom remains largely isolated, and special needs are still largely met from the school's own resources. Indeed, many mainstream teachers consider that meeting special needs is their responsibility, though in general they are [illegible] of teachers. He gives a penetrating analysis of the anomalies of the 1981 Education Act, providing as it does easy escape routes for those authorities and schools moving reluctantly towards increased integration, but he acknowledges that the Act provides a framework for far-reaching changes. Galloway also underlines the importance of teachers' attitudes and behaviour towards pupils with learning difficulties, as well as of school policy and organization, curriculum content and in-service training and support for teachers. The research reported in *One in Five*, in indicating the extent to which teachers tend to minimize the school's role in the causation of special needs, lends support to his basic argument.

Galloway knowledgeably explores the realities behind much of the verbiage, bureaucracy and formal procedures associated with special education. While often supporting his arguments by reference to empirical studies, he admits that research seldom provides tidy answers to complex questions. Many of the points he makes are convincing enough, but it is unfortunate that, in spite of his obvious desire to present a balanced case, the book emerges as mainly negative in tone. This might have been avoided had Galloway given more credit to the work of special schools and classes in catering for the rejects of the school system, and if he had provided more concrete examples of practices illustrating how schools can cope with severe problems of learning and behaviour without recourse to any form of segregated provision.

These two books are relevant to all concerned with meeting special educational needs, and will repay careful reading. Because they present a picture of the current scene rather than discuss in detail how teachers might act in specific situations, both books are likely to be of greater interest to administrators, advisers and course tutors than to practising teachers. However, it will be a great pity if they are not also read by class teachers and head teachers in ordinary schools.

Maurice Chazan

Maurice Chazan is emeritus professor of education at University College Swansea.

ILLUSTRATED LONDON NEWS

A "ragged" school in London, 1853. A picture from Alan Bullock's *The Humanist Tradition in the West* (Thames and Hudson, £14.00).

SOCIOLOGY OF EDUCATION

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BOOKS

EDUCATION

Exam package

Sociological Interpretations of Education
by David Blackledge and Barry Hunt
Croom Helm, £17.95 and £8.95
ISBN 0 7099 0647 1 and 0676 5

Sociological Interpretations of Education is essentially an undergraduate textbook in the sociology of education. The authors have worked hard to present complex issues in a clear simple English, free from some of the jargon that clutters parts of the subject. It will undoubtedly be useful for those students who still take lecture courses in the sociology of education.

Despite these strengths *Sociological Interpretations* was a depressing book to read. It is, in fact, an old style textbook in a new style subject. Maybe it will do for polytechnics and university courses what textbook writers have already done for A level sociology, reducing the subject to fit the examination structure. It was this "academic" packaging and presentation that was the source of my depression. In the course of three hundred pages I learned a great deal about the "great names" in the sociology of education and even about sociological perspectives without learning much about education or discovering much about what is going on in our schools and other educational institutions.

The book is divided into three parts: Durkheim and the functionalist tradition; the Marxist perspective, and the interpretive approach. Within each section the main sociological perspective is described and then followed by the contributions of the most important and interesting writers within each. Thus Durkheim is followed by the modern Durkheimians, David Hargreaves and Basil Bernstein. The functional approach is exemplified by Talcott Parsons and followed by Ralf Turner, Earl Hopper, Ioan Davies and so on.

At the end of each section or when it is covenient there are comments which integrate the described contributions into the authors' commentary. The "great names" are therefore punctuated with authoritative comments. Some of those comments are quite challenging but they are written in such a matter of fact way that the reader can sometimes be carried considerable distances in a particular direction before he/she realizes the scope of the comment. For example, when dealing with historical materialism they write:

> Our basic criticism of historical materialism is that, if it is a theory of economic determinism, then, quite simply, it is false; whereas, if it is a theory of relative autonomy, proposing that there is an interaction between base and superstructure in which economic forces condition but are conditioned by the superstructure, then it is a truism, a mere commonplace . . .

So much for Marxi Bernstein does not fare much better, he is apparently confused about Durkheim's individualism and has "adopted the worst aspects of Durkheim and neglected the best." The new sociologists also have their weaknesses. "It never seems to occur to them that (teacher) categories and concepts may turn out to be quite reasonable ones with a firm foundation in reality."

Blackledge and Hunt cannot therefore be accused of uncritical acceptance. Some of the "great names" have feet of clay. The disturbing aspect is the manner in which they apportion praise and blame. The student is *told* about the research and then *told* what to think about it. In the rush to produce an authoritative textbook some essential ingredients have been lost. The first is that sociology is an exercise based on the consideration of evidence. Blackledge and Hunt seem to have forgotten this. Nowhere is there a table or an account of the research process that would enable their students to get beyond the generalities of summarized accounts. Methodology is commented upon from time to time but at no point do students get near the research process, nor are they encouraged to develop critical autonomy.

The second missing ingredient relates to the kind of concerns that students themselves may have encountered in their education. What has happened to sexism and racism? Neither of these major topics is indexed in the book. They will apparently have to wait until one of the "great names" gets round to producing a major text on them. A third omission concerns what is currently happening within education and schools. James Callaghan's "back-to-basics" speech at Ruskin College is mentioned because the Centre for Contemporary Cultural Studies have written about it, but the subsequent events are missing and the Technical and Vocational Education Initiative (TVEI) is not mentioned. The world of education seen through the eyes of sociologists is necessarily an uneven affair which needs some editorial correction.

This book will undoubtedly be useful to students in taking their exams but represents a disturbing trend in sociology.

Colin Lacey

Colin Lacey is professor of education at the University of Sussex.

Rethinking schooling priorities

Schooling and Work in the Democratic State
by Martin Carnoy and Henry M. Levin
Stanford University Press, $32.50
ISBN 0 8047 1242 5

An Education of Value: the purpose and practices of schools
by Marvin Lazerson, Judith Block McLaughlin, Bruce McPherson and Stephen K. Bailey
Cambridge University Press, £20.00 and £7.95
ISBN 0 521 30339 7 and 31515 8

These volumes are united by a concern for the future of American education and provide a counterweight to the current preoccupation with standards and excellence. Both are clearly written and the authors are among the best known scholars in their respective fields. Unlike much of the discussion of "excellence in education", they reflect the liberal end of the ideological spectrum on education. *An Education of Value* is a collection of essays around the general subject of its title rather than a coherent analysis. In *Schooling and Work in the Democratic State*, two radical economists summarize the present state of knowledge on the relationship between education and the labour market in America.

Carnoy and Levin attempt two tasks: they discuss recent debates concerning schooling and the labour market and they provide a new framework for understanding this relationship in the context of the capitalist nation state. They argue that a key factor is understanding the role of the state in determining both educational policy and labour market factors. Changing national priorities (for example, from social control and cohesion in the turbulent 1960s to a stress on high academic standards in order to compete in a difficult world economy in the 1980s) mean that the schools are called on to play varying roles and the pressures on them may alter radically from time to time, depending on social and economic priorities. Carnoy and Levin argue that recent Marxists have misunderstood the role of schools by assigning to them a purely mechanistic relationship to economic power. They criticize "mainstream" analysts for assuming that the schools are independent agents, free of direct control by economic elites. Reality they claim, is a complex array of pressures affecting both educational policy and practice.

Schooling and Work in the Democratic State provides a careful multidisciplinary analysis of the education-work relationship. Indeed, this may be the most valuable part of the book, as it is possible for the reader to get a sense of the debates and theoretical approaches to this key topic over several decades. The authors relate schooling to the changing American occupational structure, to changing conceptions of the state and to the contemporary workplace. They look at the role of education in determining social mobility and examine the issue of measuring academic achievement and the role of measurement in selecting students for different occupational roles. A stimulating chapter looks at the "contradictions in education"; those aspects of educational practice that do not neatly fit into overarching theory. For example, they point out that the cultural role of schooling operates relatively independently from economic factors. They point out that attitudes toward education vary over time and that different classes and social groups have divergent perspectives on education. Thus, in America, education has always been an issue of considerable debate. Somewhat less convincing are several chapters at the end of the book that focus on the changing workplace and employment structure. They attempt to chart the relationship of this argument to educational policy and reform.

An Education of Value, in contrast to *Schooling and Work*, has a much looser theme and less structured (and generally less convincing) argumentation. The book deals with many subjects including curricular reform, inequality and schooling, computers and education, the problems of the teaching profession and the prospects for educational reform in America, though there is no clear explanation of why these topics were chosen rather than others. This slim volume (122 pages of text) does not really do justice to the range of issues considered, nor are the underlying commitments of the authors clearly enough spelled out. However, the authors do make an effort to reflect on the broader implications of contemporary educational developments in the United States, implicitly arguing that current trends are in many ways inimical to the humanistic values which they argue American education has traditionally espoused.

An Education of Value also pertinently reminds us that educational institutions are remarkably stable and in many ways conservative. In this [illegible] than are Carnoy and Levin, who feel that "popular struggles" combined with new external demands hold out the promise of significant educational change. A chapter on curricular developments, for example, points out that several innovations of twenty years ago, such as the "new math", failed completely and that the enthusiasm of the moment does not necessarily mean lasting change in the schools – a sobering thought for those engaged in the "excellence movement" in American schools.

Lazerson and his colleagues also ask educators to be sensitive to the elitist nature of some of the contemporary reforms and to temper them with a commitment to the traditional democratic values of American schooling. They point out, for example, that the computer revolution has been largely limited to the middle classes. A simple counting of computers in suburban schools versus those in less affluent areas will give an indication of the magnitude of the issue. With few exceptions, wealthier school systems have been more attuned to computer literacy and other efforts to upgrade education. In a discussion of the problems of teachers, the authors criticize the tendency to introduce a more lock-step curriculum and reduce the autonomy of the teacher in the classroom. They passionately argue that teachers should not be "deskilled" by a headlong rush toward accountability, teacher testing and a more rigidly structured curriculum.

From quite different starting points and with divergent concerns, these two books consider similar problems and have similar foci. They consider the impact of contemporary educational developments in America, and particularly the "excellence movement" and focus on some of the problems of these developments. The economists Carnoy and Levin start out with a narrower focus and a tighter argument than do the multidisciplinary authors of *An Education of Value* but both books look at education in a more humanistic framework than is common among America's current generation of "reformers".

Philip G. Altbach

Professor Altbach is director of the Comparative Education Centre at the State University of New York at Buffalo.

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BOOKS

EDUCATION

Three sneers

Private Education in Britain
by Clive Griggs
Falmer Press, £14.95 and £7.95
ISBN 0 85000 073 5 and 074 3

Packaged as a scholarly study of the peculiarly British attitude to private education this book "aims to correct inaccurate ideas about the past and misinformation concerning the present of many of the fee-paying schools". A worthwhile aim, but before any evidence is adduced, no later in fact than the opening paragraphs, we are left in no doubt about where the author wants the argument to lead. "The two systems cannot co-exist as the prosperity of the private sector is bought at the expense of the maintained sector". The introduction finishes by quoting Neil Kinnock's remarks on the campaign against private schooling and declaring that "it is in that spirit that this book has been written". So before any analysis the colours are well and truly nailed to the political mast.

It is not surprising therefore that what follows is the case for the abolition of independent education, with the author as prosecuting counsel. He begins by recounting the part that corruption and cruelty have played in the history of the public schools. The theme is that the idea of antiquity as a virtue in itself has deluded many parents. They have paid school fees without realizing that the traditions offered as the hallmark of the product are not as old as they seem. Apparently one of the fruits of Eric Hobsbawm's researches was that the Charterhouse tie was not designed till 1900. Compared with Bradley's *Lanchester Tradition*, however, this is a lumbering debunk. Half a century on, it has reinvented the wheel by making it square.

The account of the schools of the present day is mainly concerned with their social class composition. The discussion of the role of "public school and Oxbridge" in class reproduction is in greatly oversimplified terms and its critical impact is also reduced by disproportionate concern about trivialities. That quaint anachronism, the Oxford and Cambridge practice of awarding an MA without study, hardly warrants the indignation with which it is described. There are many more profitable things to analyse – the subtleties of intergenerational movement between the independent and maintained sectors, the particular position of girls' schools, the role of the nonconformist religions in independent education. To do so, however, is to blur the political message which gains from presenting the picture in the single crude dimension of top hat versus cloth cap.

Politically the heart of the argument is funding and here, if the *parti pris* tone is discounted, the book is useful as a blow-by-blow account of the public debates on the various ways of putting independent schools within the reach of the less well off. Removing direct grant status in 1975 was the beginning of 10 turbulent years. The reasons for the removal are explained on the basis of statistics which showed an uncomfortable overlap between academic and social selection. Hence the means testing for the Assisted Places Scheme. But solving the social class problem appears to have made the hostility to the scheme even greater, the argument having switched to the issue of creaming off the best pupils from the maintained sector. And then there are vouchers, designed to give all families the choice which only some can at present afford, but proved by the Kent feasibility study to be unworkable. Sir Keith Joseph had to sum them up as "a noble concept but now dead" and was spared trying to introduce them in the teeth of fierce opposition in the teaching profession.

An account which, like this one, emphasizes political hostility to the independent schools does much to explain why their public relations profile through the Independent Schools Information Service has been so notable over the past ten years. It emerges that there is at least one thing that they share with the maintained schools, vulnerability to media coverage. The author's contention is that independent schools get much better treatment: "As a generalization, when faults, real or imaginary, are found within a maintained school, this is then depicted as typical of all the maintained schools within the same category. By contrast, when faults are found with a private school it is seen as an isolated example and the problems found are not visited on every other private school from Eton to St Trinian's". From this is deduced a theory of conspiracy to destroy confidence in [illegible] evidence the proposition appears to owe more to emotion than reason.

It may be inevitable that so much emotional capital is invested in books about private schools, whether for or against. It is not confined to Britain of course (witness the recent mass movement in support of the *écoles libres* in France). But the Great British Hang-up characterized by this book – three sneers for the public schools – is, by the standards of other countries where private education also flourishes, quite extraordinary. Perhaps it is time that studies of this kind were set in a rather less insular context.

Arthur Hearnden

Arthur Hearnden is general secretary of the Independent Schools Joint Council.

April 1915: the first anniversary of the Burston school strike, which lasted from 1914 until just before the Second World War. The picture is reproduced from *The Burston Rebellion* by Betka Zamoyska (Ariel Books, £3.95).

Problem solving

Girls and Mathematics: from primary to secondary schooling
by Rosie Walden and Valerie Walkerdine
Bedford Way Papers, £3.95
ISBN 0 85473 222 5

Mathematics, along with science and technology, are predominantly masculine preserves in our culture, despite some newsworthy exceptions. This book attempts to find out why girls are not attracted to mathematics and why they appear not to do justice to themselves in tests of attainment and public examinations. There are two established answers to these questions. One, now less popular, argues for psychological sex differences on the basis of genetic factors to account, for example, for the greater verbal ability of girls relative to boys, or the greater spatial ability of boys. The other sees cultural stereotyping as the culprit, persuading girls that mathematics and science are incompatible with the feminine role.

Walden and Walkerdine present an intriguing variation of the cultural stereotype interpretation which implicates forms of learning and teacher behaviour as important variables. They began, they tell us, by assuming that their task was to explain the discontinuity in girls' mathematics attainment between primary and secondary stages of education, but examination of the literature and their own test results with fourth-year secondary pupils failed to reveal significant differences in test performance, although relatively fewer girls were entered for O level mathematics.

Why should this be the case? According to the authors, the story runs as follows. The new mathematics in primary and secondary schools places great emphasis upon active problem-solving instead of rote memorization. Teachers look out for evidence of "real understanding" in their pupils which is interpreted as the ability to challenge ideas and to show confidence in critical behaviour. But such active, critical behaviour is perceived in the culture as masculine in style, and it is, therefore, more difficult for girls to display it. They are thus more likely to be judged low attainers and entered for CSE rather than O level mathematics.

Walden and Walkerdine illustrate this thesis largely through a qualitative analysis of a small group of children and their teachers. They show how teachers evaluate "real understanding" and how those girls who are unable to project evidence of that are judged (and judge themselves) as poor at mathematics. But they point out that these psychological/cultural difficulties do not lead to large differences in performance in public examinations, at least for the 25 per cent of 16-year-olds who take O levels, and they explicitly avoid identifying the stereotypical style of the female intellect (being hard-working, helpful and not given to public challenge) with relative academic failure. "Rather, our analysis points to problems both in the pejorative way in which their performance is evaluated despite success, and to those practices which help maintain both femininity and masculinity."

I do not believe that this interpretation is quite as original as the authors claim. The Fels Longitudinal Study, initiated between 1929 and 1939, for example, also invoked culturally-determined role-conflict as an important mediator of continuity in development (incidentally, arriving at the same conclusion, that achievement behaviour does not suffer the discontinuity observable in some other areas of personality). It is not apparent, also, how established theories of the development of knowledge are challenged – after all, if there are no significant sex differences in attainment other than those attributable to teachers' judgements, are we not confronted with social constructions that are only marginally related to the development of knowledge structures? And, while this qualitative analysis is suggestive, we need closer and more systematic scrutiny of the behaviour of teachers and children to ascertain causal connections.

These issues remain but they should not diminish our concern for the problems faced by girls in mathematics, a subject which for most of us needs no complications added to its inherent difficulty. This is an interesting and important book with implications far beyond mathematics teaching.

Neil Bolton

Neil Bolton is professor of education at the University of Sheffield.

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BOOKS

EDUCATION

Making the grade

Examinations: a commentary
by John C. Mathews
Allen & Unwin, £18.00 and £7.95
ISBN 0 04 370160 and 370161 2

It is a sad reflection upon the priorities in education in this country that more is spent on examining our pupils than on the provision of books and materials. What is more, examinations have probably been the most pervasive and stultifying influence in British education over the past fifty years.

Since the establishment of the Secondary Schools Examinations Council in 1917 examinations, as the legitimate end product of the schooling process, have acted as a powerful and effective constraint upon the practical consciousness of teachers and most aspects of their daily interactions with their pupils. And yet examinations, and assessment procedures more generally, are among the least understood and most under-researched aspects of educational practice in schools. Mathews's book, a general review of examinations and examining, is a welcome addition to the sparse literature in this field and its publication could not be better timed. Never before have teachers and other educationists more needed to be well versed in the intricacies of graded testing, norm-reference vs criteria-reference, patterns of differentiation, profiling, records of achievement, and so on. Thanks to the interest and intervention of the Secretary of State for Education schools and colleges currently face the most comprehensive examining procedures since 1917.

Mathews leads us through the potentially dry and inaccessible intricacies of the design, production and marking of examinations. His commentary ranges from the effects of handwriting legibility on marks awarded through to the pitfalls of result publication. At each point the potential for controversy is clearly underlined. The contradiction between the development of national standards and fixed criteria on the one hand and the need for evidence of individual effectiveness on the other is never far from the surface. Indeed the resolution of this contradiction, through what Mathews calls "new ventures", is the main focus of the latter part of the book.

The concern with national standards is evident in the proposed introduction of the General Certificate of Secondary Education. The GCE and CSE boards have been corralled into five regional examining groups; they are to produce exams for the whole ability range, based on national criteria (approved personally by Sir Keith Joseph) and specific grade-related criteria set and published by the examiners. Furthermore the examinations are to allow for the internal differentiation of candidates of differing abilities. Distinction certificates will be available to those candidates who achieve good grades in a broad range of key subjects. At one and the same time these proposals represent a natural response to comprehensive reorganization, a common examination for a common system, and a return to the methods of matriculation.

The concern for measures of individual, personal and social attributes is represented in the range of initiatives related to the production of profiles and personal records of achievement. In positive terms these developments indicate a serious attempt to shift the emphasis in school assessment from failure (what the student cannot do) to success (what the student can do). Negatively, there is an attempt to open up more of the student for assessment. Attitudes, life skills and personal attributes all become valid objects for recording. Again Mathews raises significant technical and philosophical questions about the implementation of these new forms of examination.

Examining and assessment are issues which are virtually ignored in most pre and in-service education courses and yet here hardly a page goes by without some matter of deep and vital controversy being raised. It is a grave mistake to assume that examinations are just an annoying afterthought in the educational process. As Mathews ably demonstrates they act back upon every aspect of that process.

Stephen J. Ball

Stephen J. Ball is lecturer in the sociology of education at the Centre for Educational Studies, King's College London.

Paying customers

Bridges to Knowledge: foreign students in comparative perspective
edited by Elinor G. Barber, Phillip G. Altbach and Robert G. Myers
University of Chicago Press, £23.75
and £12.25
ISBN 0-226-03586-8 and 03587-6

series of papers which appeared as a special issue of the *Comparative Education Review*. Most of the papers stand up well to the transition from journal to book and the greater permanence that this implies. However, a book ought also to have a unifying theme and on this test the success is less clear. The editors have contributed a short introductory chapter which summarizes the remaining 14 chapters but they do not really draw the threads together. The final chapter on English as a second language, while fascinating in itself, has few links with anything that has gone before.

The book does have some excellent individual contributions, two categories in particular standing out as fine examples of American social science scholarship. The first is the heroic statistical analysis drawing conclusions from unpromising data. Fry's analysis of the "economic and political impact of study abroad" is an outstanding example of this. He shows by means of analysis of figures from 81 developing nations that rates of economic growth in the 1970s were significantly related to propensity to send students abroad in the 1960s. A different sort of statistical analysis, equally convincing, underlies James Coleman's evaluation of two Rockefeller Foundation attempts at building institutions in third world countries – an outstanding success in Thailand and a failure in Nigeria. Coleman's analysis of the issues. Goodman on the institutionalization of overseas education, Weile, on the political dilemmas of foreign study and Mouck on overseas training and national development in sub-Saharan Africa are successful examples. None of these authors answers the question of who really benefits from overseas students but they provide excellent frameworks within which answers may be sought.

By contrast the European contributions by Peter Williams and Alan Smith deal with rather practical issues. Smith reviews recent experience in western Europe and Peter Williams returns to the theme of the effects of the great change in British policy of 1980. Particularly interesting is his willingness to admit that the effects have not all been bad. He shows that the university sector as a whole has remained buoyant in its recruitment of overseas students and this he attributes largely to its being able to retain fee income, whereas polytechnics have had no such incentive to go out into the market.

Williams also suggests that because overseas students are now paying customers, many universities now make much greater efforts to provide courses that are appropriate to their needs. For the present Government the most telling sentence in the whole book is surely his concession that "The fear that moving higher and further education into the market place would produce a worse deal for the students appears not to have been borne out, as prior study of the professionalization of many North American institutions in caring for foreign students would possible have indicated all along". However, before the National Union of Students and the vice chancellor's committee concede total victory to the privateers they might turn to Lonsdale's useful little empirical study of "institutional culture and third world student needs at American universities". It is not at all clear that American universities do all provide value for money for their paying customers.

In brief this is a collection of excellent papers marred only by the failure of the editors to pull the threads together with a suitably rigorous critical evaluation.

Gareth Williams

Gareth Williams is professor of educational administration at the University of London Institute of Education.

BOOKS

EDUCATION

Women in college

In the Company of Educated Women: a history of women and higher education in America
by Barbara Miller Solomon
Yale University Press, £25.00
ISBN 0 300 03314 1

The extension of educational provision has been one of the acceptable reforms in American history. This is not to say, however, that all groups in American society have benefited equally from the educational process, or that its social significance has not been exaggerated. Class and regional background have sometimes been more important than the number of years spent in school in determining how well people fare in later life. And women have been treated like minorities in that, until very recent times, they have been educated for place rather than to renlize their own potential.

Women who have wanted education at every level have always found it difficult to break free from the constraints imposed on them by society's views about the proper role of women: indeed, they themselves have supported such views as often as they have challenged them. Thus although by their own efforts and with the help of men they obtained education before they achieved political rights, it proved harder to secure higher education than any other kind. It would appear, therefore, that men were persuaded of the need for better educated mothers and companions by the 19th century, as attitudes to child-rearing and marriage changed. Certain kinds of employment, made possible by education, even came to seem acceptable for spinsters, widows and women whose families were in reduced circumstances. But advanced education, which suggested that women might be trained to compete with men for access to the professions, was far more controversial.

Barbara Solomon's excellent history of women and higher education in America helps us to determine how opposition to it was eroded, what women made of their new opportunities, and what obstacles still remain. Her study ranges from colonial times to the present, and while building on the work of those who have focused on institutions and individual educators, it has the great merit of surveying, through an impressive combination of literary and statistical sources, the overall experience of women who went to college. The author considers the motives that impelled them forward, the role of those who helped them, the associations they formed while at college and the routes they took on leaving.

Solomon found in the course of her exploration that very few broad generalizations about women's higher education will hold. Yet in showing the complexity of her subject, she does not leave one confused or bereft of conclusions. For example, we must concede that "the assumption that women's colleges consistently offered female role models is an oversimplification", it becomes quite clear that women who went to college "for many different, personal reasons . . . could gain what they wanted and discover more than they had anticipnted". It also becomes apparent that when old arguments against further education for women had been refuted, new ones regularly sprouted to take their place. Accordingly, when it was established that women were educable, even to advanced levels, critics suggested that the price of academic brilliance was nervous breakdown and general physical decay. Similarly, when highly educated women were shown to marry later and have fewer children than less privileged women, dire warnings about race suicide emerged.

Furthermore, I think this book shows us that we can continue to generalize about how frequently changing social needs shaped women's educational opportunities. Hence, in the period up to the First World War, college recruitment was helped by the need for more teachers, when upper-middle-class parents realized that colleges were "a convenient parking place for adolescent daughters"; while, in the second half of the 20th century, women applicants have been valued when Americans became anxious not to waste any academic assets during the cold war, and when falling rolls made the colleges themselves more responsive.

In the Company of Educated Women also greatly improves our understanding of a wide array of specific topics. It assesses the particular problems of minority women while estimating the degree to which women were affected by difficulties that touched the lives of all students. It evaluates the contribution of women's colleges to pedagogical innovation and the pluses and minuses of home economics and coeducational instruction. It re-examines the subject preferences of men and women, the generational contrasts between the two schools can be attributed to structural causes. For instance, control of both schools' management committees resides with clergy. For the state school, however, clergy of different Protestant denominations must share control, resulting in a "non-denominational" Protestant ethos. For the "maintained" (Catholic) school there is no such dispersal of power, ironically resulting in a less overt presence of clergy within the school.

While recognizing that aspects of each school's unique character also explains differences (for example, "Rathlin", the Protestant school, has a reputation for high academic standards stretching back over generations and a more middle class clientele), Murray concludes that the fundamental difference between the two schools and, by implication, between the two school systems, is one of culture. The Roman Catholic school is seen as having the religious, *Catholic* upbringing of the child as its central motivation while that of the state school is the academic education of the child. Given these fundamentally contrary views of education and noting that, for the majority of the Protestant teaching staff, "integration" means complete absorption of the Catholic school system into that of the state, Murray sees little prospect for integration.

Other barriers to integration, such as contrasting reverence for and mocking of British institutions and stereotypic views of the "other sort", are recorded. An interesting finding is that the symbols that one grouping finds provocative may be so much a part of the everyday experience of the other as to be beneath consciousness. For example, the Protestant teaching staff expressed unease about seeing religious pictures and objects displayed in Catholic schools – none of the Catholic staff could describe the religious emblem prominently on view in the entrance hall to their school and some did not even know it was there.

The book itself sometimes becomes a source of primary data, particularly when Murray, a Northern Irish Catholic, writes about the state school. This is both a strength and a weakness. A Protestant colleague involved in the same research would have added much. The text itself would have benefited from a strong editor. There is repetition and some later sections are eclipsed by earlier, more elaborated treatments of the same material. This is particularly frustrating since much of what is presented goes a long way towards giving a "feel" of the two schools. More material on more facets of school life would have helped the reader understand how Northern Irish schools do (and do not) differ and also *allowed personally the validity of* Murray's conclusions. The most serious limitation is the equation of integrated education solely with total assimilation of Catholics into the state system even though more pluralist alternatives do exist. I would have liked to have known more about the families that provided the six Catholic children that did attend Rathlin and particularly more about the Catholic parents who enrolled their child in Rathlin while refusing to state their religion.

Worlds Apart, since it does provide the only ethnographic account of education in Northern Ireland from the point of view of teaching staff, is worth reading by anyone interested or involved in education in the province. It will be of most use, however, to those living outside Northern Ireland who desire an insight into the nature of sectarian division here or to those researching segregated education elsewhere who could benefit from a case history of segregated education different from their own.

Robert L. Miller

Robert Miller is lecturer in sociology at the Queen's University of Belfast.

Sectarian division of schools

Worlds Apart: segregated schools in Northern Ireland
by Dominic Murray
Appletree Press, £10.95
ISBN 0 86281 145 7

Dominic Murray conducted a participant observation study of two Northern Irish primary schools, one Catholic and one Protestant, located near each other in a "large Protestant town". The main goals of the research were to establish the basis of the universally-accepted assumption that Catholic and state educations differ and to assess the implications of these differences for possible future integration.

Murray reports various aspects of the schools, such as systems of management, symbols and symbolic activities, and so on, but concentrates particularly upon the attitudes of teaching staff. His findings, and his interpretation of them, offer scant comfort to integrationists. Some of the differences and commonalities between the two schools can be attributed to structural causes. For instance, control of both schools' management committees resides with clergy. For the state school, however, clergy of different Protestant denominations must share control, resulting in a "non-denominational" Protestant ethos. For the "maintained" (Catholic) school there is no such dispersal of power, ironically resulting in a less overt presence of clergy within the school.

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Robert L. Miller

Robert Miller is lecturer in sociology at the Queen's University of Belfast.

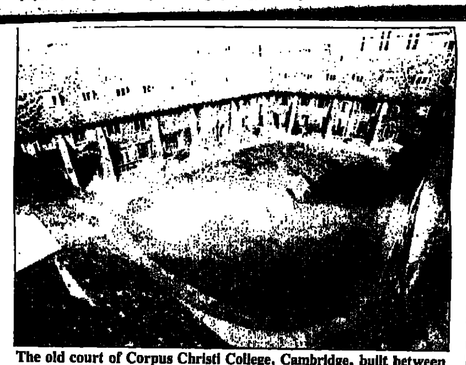
A cultural force

The Management of Ignorance: a political theory of the curriculum
by Fred Inglis
Blackwell, £19.50
ISBN 0 631 14348 3

Fred Inglis addresses his book to teachers who "as never before are powerful, audible, visible, respected, *educated*." That may seem surprising to those who long for the good old days, when we all knew who was who and what was what and when the authority and expertise of teachers went unchallanged. Inglis dismisses this nostalgic stereotype as part of "folklore", emphasizing his contention that our consciousness develops in the context of received versions of the past and of culturally endorsed scenarios for the future which, though partial, selective and distorting, powerfully determine our interpretation of present realities.

In *The Management of Ignorance*, Fred Inglis has two main aims. The first is to get across to those concerned with educating the young the idea that knowledge is a human product for human use, to be distributed humanely so as to maximize freedom, fulfilment and critical self-awareness for all individuals in society. He thus wishes to rally teachers to the possibility of "a new socialism" founded on the cooperative production and interpretation of cultural capital, and its equitable distribution and revaluation.

But this is not yet another volume on Marxist epistemology for educators, for Inglis's second purpose is to carry further the growing critique of that scientistic and positivist epistemology which, since the Enlightenment, has lent an overly rationalist, individualist and manipulative cast to European thought – a cast which underlies the social ruthlessness of both capitalist and Marxist political and economic systems. Inglis therefore wishes to advance a post Marxist epistemology, whose philosophical roots lie in critical theory, and whose practical consequences would provide teachers with a rationale for negotiation in their key role as partial producers of our future social world.



The old court of Corpus Christi College, Cambridge, built between 1352 and 1377, which was the first enclosed collegiate composition to be built on the court plan. The picture comes from *Cambridge Architecture* by Tim Rawle (Trefoil, £14.95 and £9.95).

The vocation of teachers is to knowledge and its cognates, the good, the true and the beautiful. Their fight ranges over the terrain of what that official knowledge is – over what is known, who shall know it, and what may be done with it for a living. They stand, therefore, at the intersection of values and production.

Far from being a hapless group of social technicians at the behest of "cultural bureaucrats" – meaning-makers in political parties, the media and powerful interest lobbies – teachers are here seen as a potentially powerful cultural force. Through a critical revaluation of received interpretations of past and present circumstance, teachers in this view have both the power and the responsibility to open up the range of options for our social future.

Inglis's approach is persuasive rather than didactic, taking his readers on a wide-ranging exploration of the workings of the educational process and of the structure and values of the social context in which it is embedded. In his prime preoccupation "with understanding how the entire curriculum works and with directing it to better ends", he is concerned to discover how we got to where we are today, unravelling a history of ideas, culture, political movements, industrial and social processes which together combine to produce the crisis conditions of late capitalism. In education, he argues, this is manifested in the gulf between the story told by the standard curriculum about ourselves, our values and our world, and the realities of life as we experience it. If schooling is to be other than a sterile and alienating mode of social control, the curriculum must be radically reassessed to both reflect and inform the mental and social life of its audience.

In seeking to reveal the workings of the curriculum, Inglis examines the historical development and social mobility of a range of subjects – English, classics, science, business management, – demonstrating that while forms of thought may be enduring human practices, what is chosen to represent these forms at any given time is a matter of social construction. Hence, curricula can be *reconstructed*, as they periodically have been in response to developments in consciousness and social organization. A more radical reconstruction is presently required to take account of the experiences and legitimate interests of those groups who, by reason of their sex, class or race, have traditionally been under-represented in the historical biography of a culture which goes to make up the formal curriculum of schooling.

This inquiry into the workings of the curriculum engages seriously with the sociological approach to schooling as a mechanism of social control, but it both elaborates and qualifies popular sociological insights. Though social control is necessarily one feature of institutionalized schooling, it need not be its only or dominant feature, except where curricula neither reflect nor respect the consciousness of the population as a whole. That social control appears to be the prime function of schooling in this society is a contingent matter, with more to tell us about the defects of the accepted curriculum than about the nature of schooling itself.

Inglis's analysis of educational ills is thus subtler, less pessimistic and more potent than the standard critiques of liberal education which, in invoking cultural relativism, tell us not only where we are going wrong, but also why there is nowhere "better" to go. Though he endorses many of the insights which are often advanced to sustain relativism, he avoids the regressive conclusions which usually follow. While he rejects the epistemological realism of the traditional liberal curriculum, which he claims ignores history and social processes, marginalizing the experience and interests of large segments of society, he also rejects relativism as over-individualistic – a version of decadent romanticism which underplays our common humanity and the mutuality of shared experience and interest.

This book is not easy to review for precisely those reasons which make it eminently worth reading: the writer's arguments are not easily categorized; his theoretical analyses show little adherence to standard ideological divisions in the current educational argument; his exhortations for changes in practice strike chords to which both radicals and traditionalists might find themselves responding. For books like this, perhaps the best that a review can do is to alert potential readers to a powerful, stimulating, diffuse source of challenging ideas.

Ruth Jonathan

Dr Jonathan is lecturer in education at the University of Edinburgh.

NEW TITLES
EDUCATION

Children's Ideas in Science
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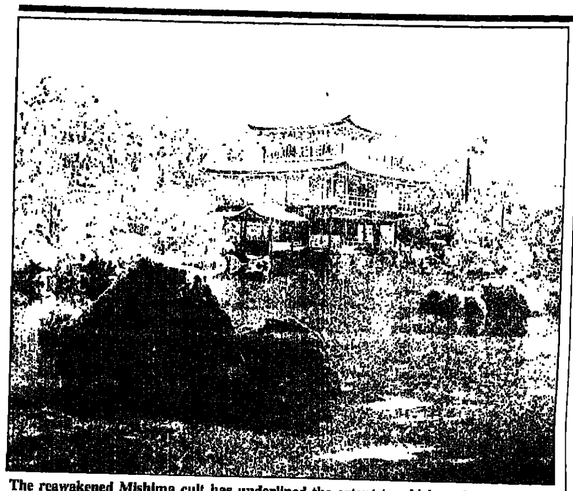

The reawakened Mishima cult has underlined the extent to which modern Japanese culture is an uneasy mix of old and new, "Eastern" and "Western" influences. The exhibition of Japanese arts currently on show at the Barbican emphasizes the traditionalist aspects of recent work: Nihonga painting, calligraphy, toys. Perhaps the best symbols of all are Japanese gardens. Illustrated here is the Rukuon-Ji Temple.

NOTICE BOARD

Events

The Bishop of Durham, the Rt Rev. David Jenkins, is to speak on "Rediscovering the truth about the Holy Spirit and the Church" at Sunderland Polytechnic's Wearmouth Hall, Chester Road, on Wednesday, December 11 at 7.30 pm.

On Thursday, December 12, at 8 pm in the ICA seminar room, Gregorio Kohon, editor of *The British School of Psychoanalysis: The Independent Tradition* will be in conversation with Juliet Mitchell and John Padel. Tickets and inquiries from the ICA on 01-930 3647.

The annual conference of the Society for Research into Higher Education will be held at Goldsmiths' College, London, from December 18 to 20.

The second annual meeting of Brighton Polytechnic's Information technology conferences is to be held at the Gatwick Hilton International Hotel, Gatwick, West Sussex, on January 22. The theme is "Expert Systems in Training, Education and CBT". For details of the conference, contact Hamish Masson on 0323 33130 as soon as possible.

Sir John Burgh and Professor Dorothy Wedderburn

Honorary degrees

Queen Mary College, University of London, has announced the award of honorary fellowships to:
Sir Frederick Dainton, former chairman of the UGC and presently chancellor of Sheffield University;
Sir John Ellis, former dean of the London Hospital Medical College;
The Rt Hon. Lord Mellish, deputy chairman of the London Docklands Development Corporation;
The Rt Hon. Lord Shinwell, parliamentarian, life peer;
The Rt Hon. Lord Wolfson, chairman of the Wolfson Foundation and managing director of Great Universal Store;
Mr J. Walkind, former chief executive, London Borough of Tower Hamlets and member of QMC governing body;
Mr Simon Gray, playwright, former lecturer in QMC English department.
Ealing College of Higher Education has awarded honorary fellowships to:
Dr R. M. W. Rickett, director of Middlesex Polytechnic;
Professor Dorothy E. C. Wedderburn, principal, Royal Holloway and Bedford New College;
Mr K. Osborne, governor of Ealing College of Higher Education;
Sir John Burgh, director-general of the British Council.
The University of Lancaster is to confer the honorary degree of DLitt on Professor Philip Reynolds, who retired as vice chancellor on September 30.
Birkbeck College has conferred honorary fellowships on Mr Bernard Chibnall and emeritus Professor E. J. E. Hobsbawm.
BIRMINGHAM
MA: Mr G. R. Fletcher (benefactor of extramural department); the Rev. C. H. Smith (chairman of the Methodist district of Birmingham, president of the Methodist Church in Great Britain); Mr J. H. Fothergill (university estates and buildings officer since 1973).
LLD: Mr S. Lloyd (city councillor and alderman); Mr E. J. Newman (treasurer of the university to 1985).

Appointments

The governing body of Queen Mary College has appointed Professor M. A. Laughton, professor of electrical and electronic engineering, and Professor T. A. Smith, professor of political studies, as pro-principals for the period up to July 31, 1987.
LEICESTER
Lectureships: Dr A. C. G. Meeks (child health); Dr J. R. Thompson (ophthalmology); Dr A. C. F. Cocks (engineering); Dr C. Hall (German); Dr K. D. Browne (psychology); Dr D. R. Rossetor (psychiatry).

The Essex Institute of Higher Education has appointed Dr Neil Ferguson as head of the new school of education at its Brentwood site. Dr Ferguson is currently head of the department of education at Hertfordshire College of Higher Education.

Promotions

LONDON, QUEEN MARY COLLEGE
Personal professorships: Dr M. B. Green (physics); Dr J. W. Rose (mechanical engineering).
Readerships: Dr W. L. Chormaik (English); Dr H. S. E. Gravelle (economics); Dr C. R. Leedham-Green (mathematical sciences).

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Grants

ASTON
Dr I. Glendon, Dr R. Davies, Dr L. M. Debney and Dr G. Mathews, £46,114 from Health Promotion Research Trust (techniques for reducing stress in drivers); Dr C. L. Page, £75,712 from Department of Transport, TRRL (effect of cathodic protection on alkali silica reaction); Dr C. L. Page, £65,376 from Department of Transport (effects of ions on concrete and reinforcement corrosion); Dr C. L. Page and Dr N. R. Short, £57,395 from SERC (carbonation induced corrosion of steel in concrete); Dr C. L. Page, £31,578 from Atomic Energy Authority (hydration chemistry of blast furnaces slag/ordinary portland cement); Dr C. L. page, £13,000 from Department of the Environment (inorganic surface treatment for concrete protection); Dr P. Moore, £35,278 from SERC (precise orbit determination and analysis from satellite altimetry and laser ranging); Mr D. O. Gregory and Mr D. Johnson, £88,200 from Department of the Environment (evaluation of urban development grant programme); Mr M. Lusk, £75,000 from South Birmingham Health Authority (market research for south Birmingham health authority); Mr D. O. Gregory and Mr M. Tricker, £40,140 from City of Birmingham District Council (Inner City Partnership information database); Mr J. E. T. Penny and Mr T. H. E. Richards, £24,115 from Ministry of Defence (environmental rigs); Professor J. T. Barnaby, £24,000 from Health and Safety Executive (micromechanisms of fracture); Dr S. Murphy, £21,898 from International Lead Zinc Research Organization (protection of zinc alloy matrix composites for bearing applications); Mr W. L. Flint, £19,710 from SERC (reduction of unburned hydrocarbon emissions from carbureted petrol engines); Mr L. W. Cran, £13,500 from Backer Electric Co Ltd (elevated temperature properties of sintered steels); Professor D. E. Ager, £9,250 from British Academy (access of language skills acquired in higher education); Professor W. R. McWhinnie, £16,190 from Rhondda Metal Co Ltd (research fellowship); Professor M. F. G. Stevens, Dr J. A. Hickman, Dr A. Gescher, Dr J. A. Slack and Dr M. J. Tisdale, £292,276 from Cancer Research Campaign (experimental cancer chemotherapy research group); Dr E. S. Harpur, £34,269 from Wellcome Trust (sites and mechanisms of ototoxicity – role of melanin); Professor R. J. Lovelidge, £50,643 from Manpower Services Commission (technology monitor).

GLASGOW
Professor Nell Brooks and Dr James McCulloch, £310,284 from Wellcome Trust (ten-year study of Alzheimer's disease); Professor A. D. McGowne, £21,308 from Beecard (efficacy and tolerance of Amoxil in dental abscesses); Professor S. B. Kayne £39,489 from Cancer Research Campaign (clinical trials unit); Professor S. B. Kaye and Dr R. I. Freshney, £52,658 from Cancer Research Campaign (oncology); Professor S. B. Kaye and Professor A. T. Florence, £56,267 from Cancer Research Campaign (pharmacokinetic and pharmaceutical aspects of cytotoxic drugs); Professor S. B. Kaye and Dr R. I. Freshney, £41,799 from Cancer Research Campaign (metabolic aspects of cancer); Professor S. B. Kaye, £27,270 from Cancer Research Campaign (circumvention of cytotoxic drug resistance in animal tumour system); Dr J. B. Clements and Dr J. C. McNab, (relationships of herpes simplex virus to human glioblastoma-astrocytoma); Dr R. Hume, £46,000 from Cancer Research Campaign (mechanisms of action of interferons); Professor J. Lamb, two grants of £43,523 and £55,670 from manpower Services Commission (community programme); Dr M. B. Hodgins and Dr M. Edward, £12,000 from MRC (high performance liquid chromotography in dermatological research); Professor H. B. Sutherland, £15,730 from National Coal Board (reinforced mines tone using special designed reinforcement); Dr J. C. McGrath, £19,872 from Roche Products (mechanisms of action and physiological role of angiotensin II in modulation of vascular smooth muscle tone); Professor J. Lamb, £339,267 from SERC (thin film optical waveguide devices and systems); Dr J. C. McGrath, physiological role of angiotensin II in modulation of vascular smooth muscle tone); Dr G. Kenny, £33,619 from Scottish Hospital Endowments Research Trust (respiratory and cardiovascular effects of postoperative opiate analgesia); Mr T. Corner, £47,000 from Strathclyde Regional Council (training, education and employment for minorities); Professor K. W. Stephen and Dr T. W. Macfarlane, £34,959 from Unilever Research Factors effecting dearly demineralization of enamel); Dr S. Cole, Dr G. McIlwaine, Mrs M. Smalls and Dr F. A. Boddy, $45,000 from US National Institute of Child Health and Human Development.

BRIGHTON POLYTECHNIC
Dr J. T. Boardman and Dr F. Teskey, £120,000 from NAB (knowledge and information tools to establish methodologies for expert systems); Dr T. Cowell, £60,000 from NAB (optimization of louvred heat transfer surfaces); Dr C. Marriott, £120,000 from NAB (mucus secretion and drug delivery); Dr J. Bessant and Dr W. Haywood, £49,423 from SERC (contextual influences in the adoption and implementation of computer integrated manufacturing); Dr J. T. Boardman, £39,610 from Pactron Laboratories (studies for total test solutions in automatic equipment), and £48,000 from Racing Sale (refining automatic test systems for invisible coil ace); Dr P. J. Davies, £17,500 from Tilly Research Centre (aerosol tasteinhaler)

BRUNEL
Dr R. Dixon, £32,245 from MoD (physiological monitoring for divers); Professor H. Wolff, £18,181 from MoD (bradforading of designs for testing in cold-chamber wind tunnel); Miss A. Meles, £33,190 from DHSS (helping community to care home to hospital initiative); Professor F. Jaques, £12,490 from US Army (studied systems known for possible implementation in US army). Professor K. Sing, £10,794 from Johnson and Johnson (charcoal cloth for wound care); Professor R. Lea, £147,428 from SERC/Atkers (anti-tolerant design methodology for water-scale integration), Professor G. Musgrave, £18,408 from Cirrus Computers (research into program design); Professor M. Revis and Dr J. Bowman, £193,391 from SERC/John Guest Ltd (teaching company programme); Dr P. Hornsby, £73,250 from SERC/Steetley Refractories (flame-retardant and smoke suppressing compositions for high performance thermoplastics); Dr T. S. Eyre, £29,725 from AFRC (environmental factors and abrasive wear of ceramics); Professor A. J. Reynolds, Mr T. Thomson and Dr N. Ladommatos, £167,529 from SERC/Delco Products Ltd (teaching company programme), Dr P. H. Lowe, £51,650 from MoD (economic benefits of standards and standardization), Professor R. Wild/Dr R. J. Grieve, £10,091 from SERC/IBM (teaching company programme); Professor R. L. Willson, £40,185 from Cancer Research Campaign (free radical in cancer induction and treatment); Professor T. F. Slater, £31,589 from Cancer Research Campaign (disturbances of lipid peroxidation in cancer cells), Professor T. F. Slater, £7,500 from Santen Pharmaceutical Co (free radical techniques)

BIRMINGHAM
Dr G. Brown, £33,150 from MRC (intracellular changes during myeloid cell growth and differentiation); Dr I. S. Levy, £15,544 from Health and Safety Executive (carcinogenic action of metallic and mineral particulates introduced into the lung by intrabronchial pellet implantation); Dr P. H. Salmons, £10,606 from West Midlands Regional Health Authority (prevalence of anorexia nervosa); Professor B. Mellitt, £10,000 from Hawker Siddley Rail Projects Ltd (single train run simulator); Professor B. Mellitt and Dr C. J. Goodman, £36,000 from Leighton MTA (design study for Tsen Mun LRT); Dr R. G. Jordan and Professor M. H. Loretto, £172,440 from SERC (preparation, refining and crystal growth of metals and alloys); Dr D. A. Booth, £32,900 from AFRC (mechanisms of macronutrient); Dr J. H. Croft and Dr F. C. H. Franklin, £11,158 from John and E Sturge Ltd (development of cloning system for aspergillus nigar); Dr J. W. Lloyd, £16,274 from Water Research Centre (organic pollution of groundwater); Dr D. K. Ross, £100,000 from TI Group Services Ltd (surface coating for NET project for tritium containment); Dr J. M. Young and Dr O. H. J. Bennett, £17,496 from Fosseco International Ltd (filtering of liquid alloys).

Open University viewing

Saturday December 7

BBC2
12.40* The Effective Manager. The Deep End (P670:1)
13.05* Biotechnology. Interferon: the first four-minute mile (P563:12)

Sunday December 8

BBC2
10.35 Open Forum. Information programme for OU students (50 minutes)
RADIO 4 (VHF)
08.55* Open Forum. Information programme for OU students. (Into the Open – preparing your home and family)

*Repeat Programme

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Appointments

Universities Fellowships Research and Studentships Polytechnics Colleges of Higher Education Colleges with Teacher Education Colleges and Institutes of Technology	Technical Colleges Colleges of Further Education Colleges and Departments of Art Administration Overseas Adult Education Librarians General Vacancies Industry and Commerce

Other classifications

Exhibitions Awards Conferences and Seminars Courses	Personal For Sale and Wanted Holidays and Accommodation

All box no. replies should be sent to THES at the above address

Universities

THE OPEN UNIVERSITY

Summer School Tutorial Staff

Appointments for one or two weeks are available at the Open University's summer schools held at universities throughout Great Britain between 6th July and 6th September 1986.

Tutor Posts in the Faculty of Arts
Tutors qualified in:
Art History, History, Music, Literature and Philosophy.

Tutor Posts in the Faculty of Social Sciences
D102 – Making Sense of Society
Tutors experienced in teaching introductory level Social Science disciplines. Further tutors in Geography, Politics, Psychology, Sociology, to teach in one of three interdisciplinary modules – Crisis and Conflict: The Fight for Shelton Bar; Library Research Exercise; Men and Women and Society.

DS282 – Introduction to Psychology
Tutors with experience of Experimental Methodology in different areas of Psychology.

D309 – Cognitive Psychology
Tutors qualified in Cognitive Psychology. Computer or experimental experience desirable.

Tutor Posts in the Faculty of Mathematics
Tutors for the following courses: Mathematics: A Foundation Course (M101), Introduction to Pure Mathematics (M203), An Introduction to Calculus (MS283), Mathematical Models and Methods (MST204)

Tutor Posts in the Faculty of Science
Tutors qualified in: Biology, Chemistry (Organic, Inorganic, Physical), Earth Sciences (including Earth's resources) and Physics.

Tutor Posts in the Faculty of Technology
Tutors qualified in Elementary Mathematics and Modelling (for technologists) (TM282), Materials Science (T262), Systems (design, planning and management of social or technical systems), and Engineering Mechanics (Solids) (T232).

T101 – Living with Technology
Tutors having teaching experience and qualifications and/or interests in the areas of Energy Policy and Resources, Microprocessors, Water Quality (Biology or chemistry), Materials Science/Metallurgy, Mechanical Engineering.

T281 – Basic Physical Science for Technology
Tutors qualified in general properties of matter, electricity, optics, heat and chemistry.

T283 – Introductory Electronics, and T292 – Instrumentation
Tutors qualified in Electronics or Instrumentation: previous teaching experience an advantage.

T362 – Design and Innovation
Tutors should have experience of one or more of: Invention and design, management and marketing, user needs and technology policy.

Tutor Posts for the U-Area
U203 – Popular Culture
Tutors with teaching experience and interest in the following areas: Cultural Studies, semiology, Film and Television Study, Sociology and Social History.

U204 – Third World Studies
Tutors with experience of teaching Third World Studies in Higher Education.

U221 – The Changing Experience of Women
Tutors with experience of teaching Women's Studies within Higher, Further or Adult Education.

Demonstrator posts
Graduates in Science to work in areas of Biology, Chemistry, Physics, Earth Sciences (including Earth's Resources).
Graduates in Science and Engineering to work in areas of Materials Science, Metallurgy, Corrosion, Chemistry (water quality experiment). Electronics/Computing (microprocessor activity)
Graduates in Mathematics, Science or Technology with some knowledge of Dynamics

Application Procedure
For further particulars and an application form send a postcard to the Summer School Tutors Office (SS/3), P.O. Box 82. The Open University, Milton Keynes, MK7 6AU. Completed application forms must reach the Open University by Monday 27th January 1986.

Oxford

Templeton College teaches graduate and undergraduate courses in Management Studies at the University of Oxford and specialises in the development of executives in small groups, particularly for very senior positions.

The College invites applications for:

THREE FELLOWSHIPS IN MANAGEMENT STUDIES

These will be teaching and/or research posts in Corporate Strategy, Management Accounting, and Information Management. Experience in the design, marketing and [illegible] would be a particular advantage.

Fellows are members of the University's Faculty of Social Studies and remunerated on the usual Oxford scales.

For details contact the President's Secretary.

Templeton College
The Oxford Centre for Management Studies
Oxford OX1 5NY Tel (0865) 735422 Telex 83147 attn TEMCOL

UNIVERSITY OF DUBLIN
Trinity College

CHAIR OF PHARMACEUTICS

Applications are invited for this new appointment within the Department of Pharmaceutics. Applicants should have an established record in research and teaching and, preferably, a pharmaceutical qualification.

Further particulars and conditions of appointment may be obtained from

G.H.H. Giltrap
Secretary to the College
West Theatre
Trinity College
Dublin 2

to whom formal application may be made, preferably not later than 14th February, 1986. (7378f)

UNIVERSITY OF ULSTER

LECTURESHIP IN ELECTRICAL ENGINEERING

at Jordanstown
Ref: J85/280

To contribute to the teaching and laboratory development, to participate in course planning, curriculum development and supervision of students on industrial placement, and to engage in relevant research.

Applicants should hold a good honours degree and should have had teaching, industrial or research experience in the application of modern control techniques to heavy current electrical engineering.

Commencing salary will be determined by age, qualifications and experience within the range £7,526-£14,925 per annum (under review).

Further details are available from the Staffing Officer, University of Ulster at Jordanstown, Shore Road, Newtownabbey, Co Antrim BT37 0QB (Telephone Whiteabbey (0231) 65131, Ext 2243) to whom applications, including a full curriculum vitae and the names and addresses of two referees, should be sent not later than 20 December, 1985. This post is open to both male and female applicants. (7294f)

UNIVERSITY OF KEELE
Department of Adult and Continuing Education

Professor of Health Planning and Management

Applications are invited for the above post in the Department of Adult and Continuing Education. The successful applicant will be expected to establish and direct a new Centre for Health Planning and Management within the Department. A second post of Senior Lecturer will be advertised immediately after the appointment to the Chair. The successful applicant will have an international reputation in a relevant academic discipline and a proven record of postgraduate teaching. The post is tenable from 1st April 1986 or as soon as possible thereafter.

Application forms and Further Particulars from The Registrar, University of Keele, Keele, Staffordshire, ST5 5BG.

The salary is on the professional scale and the closing date for [illegible] is Monday 13th January 1986. (7298f)

Colaiste na hOllscoile Corcaigh
University College Cork

University College Cork

LECTURESHIP IN GEOLOGY

Applications are invited for a full-time permanent post as Statutory Lecturer in the Department of Geology.
Applications will be particularly welcome from candidates who are broadly based Palaeontologists/Stratigraphers/Sedimentologists who can bring expertise and leadership to develop soundly based courses in these fields at the undergraduate level and to initiate and supervise postgraduate research in one or more of these areas.
The salary scale is: IR£15,487 – IR£22,005 p.a.
Application forms and further details of the post may be obtained from the undersigned.
Latest date for receipt of completed applications is Friday, 17 January, 1986.
M.F. Kelleher Secretary (7299f)

Belfast
The Queen's University
Institute of Irish Studies

RESEARCH APPOINTMENTS AND GRANTS

Applications are invited for two posts of Lecturer or Senior Lecturer in Management. The Department undertakes teaching and research in a range of management disciplines. Teaching is at the undergraduate, postgraduate, and post-experience levels and includes a well-established M.B.A. programme. Close contact is maintained with business and with the public sector and a special relationship exists with certain industries. Staff are encouraged, within limits, to undertake consultancy.

Applicants should have good, relevant academic qualifications, practical business experience, and, preferably, research and/or teaching experience. Ability to research and teach in at least one of the following areas is desirable: Business Policy, General Management, Operations Management, Industrial Engineering, Communications Skills, Organisation.

Salary: Lecturer NZ$28,600 – $35,000 per annum. Senior Lecturer NZ$37,000 – $47,000 per annum.

Intending applicants are invited to write for further information, available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Registrar of the University, P.O. Box 56, Dunedin, New Zealand.

Application forms are available from the Academic Council Office, The Queen's University of Belfast, Belfast BT7 1NN, and should be lodged there by 31st January 1986. (6187d) BT

Applications close on 31st January 1986. (6195d) NI

University of Otago
Dunedin, New Zealand

LECTURER OR SENIOR LECTURER IN MANAGEMENT

Applications are invited for the post of Lecturer or Senior Lecturer in Management. The Department undertakes teaching and research in a range of management disciplines. Teaching is at the undergraduate, postgraduate, and post-experience levels and includes a well-established M.B.A. programme. Close contact is maintained with business and with the public sector and a special relationship exists with certain industries. Staff are encouraged, within limits, to undertake consultancy.

Applicants should have good, relevant academic qualifications, practical business experience, and, preferably, research and/or teaching experience. Ability to research and teach in at least one of the following areas is desirable: Business Policy, General Management, Operations Management, Industrial Engineering, Communications Skills, Organisation.

Salary: Lecturer NZ$28,600 – $35,000 per annum. Senior Lecturer NZ$37,000 – $47,000 per annum.

Intending applicants are invited to write for further information, available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Registrar of the University, P.O. Box 56, Dunedin, New Zealand.

Applications close on 31st January 1986. (6195d) NI

Universities continued

AUSTRALIA

Applications are invited for the following posts for which applications close on the dates shown. SALARIES (unless otherwise stated) are as follows: Polesaw: $A54,946 (Subject to National Wage Increase); Research Associate $A33,475–$A38,888; Senior Lecturer $A38,841–$A42,588; Lecturer $A27,833–$A35,777. Further details and application procedure may be obtained from The Association of Commonwealth Universities, (Appts), 36 Gordon Square, London WC1H 0PF unless applications are invited direct to The University. Equality of opportunity is University policy.

The University of Adelaide
RESEARCH ASSOCIATE IN THE ELDER CONSERVATORIUM OF MUSIC
(Ref: 4428)

To work on a project entitled "Sources of Early Twentieth-Century Harmony in Music Tradition and their Transmission".

Applicants should hold a good doctoral degree and should have published in major international musicological journals and/or have delivered papers at major research congresses. The appointee should be a specialist in the history of music, theory and theory of composition 1890 to 1920, and should be able to investigate comparative and interdisciplinary historical questions. The candidate should preferably also be fluent in English and German and should have a reading command of the major romance languages.

The position is available for one year from 1 February 1986 and the appointee will be expected to commence duty as soon as possible thereafter in 1986.

Further information concerning the duties of the position may be obtained from Professor A.D. McCredie, Elder Conservatorium of Music, tel: (08) 228 5711.

Information about the general conditions of appointment may be obtained from the Senior Assistant Registrar (Personnel) at the University.

Applications, in duplicate, quoting reference number 4428 and giving full personal particulars (including a further candidates held Australian permanent residency status), details of academic qualifications and names and addresses of three referees, should reach the Senior Assistant Registrar (Personnel) at the University of Adelaide, GPO Box 498, Adelaide, South Australia 5001 (telex: UNIVAD AA89241) not later than 4 January 1986.

The Flinders University of South Australia
LECTURER/SENIOR LECTURER IN NEUROLOGY/ REHABILITATION

Repatriation General Hospital, Daw Park
School of Medicine

The post will be jointly funded by the Department of Veterans' Affairs and Medibank Industries Rehabilitation Association Inc. Applicants should have a Fellowship of the Royal Australasian College of Physicians or another equivalent qualification. A PhD or MD would be a decided advantage.

The appointee will be expected to undertake responsibilities in patient care, teaching and research, and spend most of his or her time at the Repatriation General Hospital, Daw Park, which is formally affiliated as a teaching hospital of the School of Medicine. The appointee will have a clinical role in the Rehabilitation Unit and in the Neurology Service at the Repatriation General Hospital, and will also be encouraged to participate in clinical duties within the Medical, Spinal and the Stroke-Rehabilitation Unit at the Flinders Medical Centre and to undertake a consultancy support role within Medibank Industries in the areas of training, planning and research, for people with disabilities.

The appointee will be responsible to Professor Dame Sarah Sarah, in the first instance, and through him to the Professor of Medicine, Professor J.P. Chalmers, and Dr A.J. Ashburn at the Repatriation Hospital.

In addition to salary, the appointee will receive a clinical loading of $A4,000 per year and will have limited right to private practice.

24 January 1986.

Deakin University Geelong
LECTURER — MARKETING AND MANAGEMENT POLICY
(Ref: 85/85)

The main emphasis in the School of Management is on teaching the Off-Campus MBA and On-Campus BCOM. The appointee will contribute to the teaching of the MBA in Strategic Marketing, Management Policy and Marketing Management.

Applicants should have appropriate qualifications and tertiary teaching and/or relevant business experience would be an advantage. The University would consider filling the post by secondment from professionals in industry, public service or tertiary institutions.

31 January 1986.

LECTURER PHILOSOPHICAL STUDIES
(Ref: 85/86)

Philosophical Studies within the School of Humanities covers both Philosophy (mainly Ancient) and History of Ideas as well as being affiliated with other majors such as Social Studies of Science and Religious Studies. Applicants with interests in the area of human development and/or research design and measurement. Applicants should state any additional interests in other areas of Education.

Salary: Assistant Lecturer NZ$20,000 - $34,000 per annum, Lecturer NZ$28,000 - $35,000 per annum.

Intending applicants are invited to write for further information, available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Registrar of the University, P.O. Box 56, Dunedin, New Zealand.

Applications close on 31st January 1986. (91552) H1

The University of Western Australia, Perth
CHAIR IN ANATOMY AND HUMAN BIOLOGY

Applications are invited for a tenured appointment to the Chair in Anatomy and Human Biology. The Chair will be renamed following the retirement of Professor David Allbrook, from the Chair of Anatomy at 31st December 1986. The Department of Anatomy and Human Biology has major undergraduate and postgraduate teaching commitments in the Faculties of Science, Medicine, Dental Science and Medical Education. It has strong research groups in human gross anatomy, neurobiology, histochemistry, human reproductive and developmental biology, human population, genetics, physical anthropology and human biochemistry.

The holder of the Chair will be expected to provide academic leadership over the broad range of departmental research and teaching activities. Early preference will be given to a medically qualified person with interests in functional anatomy.

Application from medically qualified with other research and teaching backgrounds will be welcome.

Salary plus a preclinical loading of $A4,000 per annum for a medically qualified individual. Remuneration as listed below plus eligibility for interstate travel grants. Further information available from the Association of Commonwealth Universities.

18 January 1986.

LECTURER — DEPARTMENT OF ECONOMICS
(Fixed Term)

Applications are invited for appointment to the above position in the Department of Economics for a period of three years. The appointee would be expected to teach introductory and advanced courses in economics and to contribute vigorously to the Department's research. Preference will be given to candidates who have completed a good PhD. For further information on the academic responsibilities of the position please contact Dr R N Hirsch, Head of Department on (09) 380 2866. (Please quote reference No. 4960)

10th January, 1986.

LECTURER — DEPARTMENT OF GERMAN
(Fixed Term)

Appointment for three years. Applicants should have native or near-native competence in German, a higher degree or equivalent qualification and substantial experience in teaching the German language at the tertiary level. Preference will be given to applicants who provide evidence of a strong research profile as well as theoretical interest in modern language teaching methodology and have the capacity to carry our research in this area. The main duties of the successful applicant will be to take part in practical language teaching, and he/she will have the opportunity of making a major contribution to course development. Ability to teach in an area of linguistics and/or literature will be an asset.

27 December 1985.

For the above two posts

Benefits include superannuation, study leave, long service leave, fares to Perth for appointee and fully dependent family, removal allowance and housing loan scheme.

Applications in duplicate stating full personal particulars, qualifications and experience and the names and addresses of three referees, should reach the Staffing Officer, University of Western Australia, Nedlands, Western Australia, 6009 by the closing date.

Conditions of appointment will be specified in any offer of appointment which may be made as a result of these advertisements.

The University of New England
LECTURER IN ECONOMICS
Position No. 668

Applicants should possess a higher degree in Economics or have comparable experience, and be well-versed in the main branches of modern Economics. Research potential is important, and proven ability will be regarded favourably when applications are considered.

The successful applicant will be expected to teach in [illegible] and will be required to participate in [illegible] and to assist in the [illegible] of the Department's computing facilities.

Salary will be in accordance with qualifications and experience, within the range $17,935 per annum, Lecturer Level I, to $23,017 per annum, Lecturer Level II (as at 1 July 1985). Appointment will be for a contract period of three years with the possibility of renewal by mutual agreement. In addition, the University provides generous fringe benefits, including superannuation, subsidised housing, assistance with removal expenses, and [illegible] for the appointee's spouse and children.

Applications, which should include the names and addresses of referees, should be addressed to the Registrar, The University of New England, Armidale, N.S.W. 2351, Australia, prior to the closing date. Applicants should forward a copy of this advertisement to their referees and ask them to send their reports direct to the Staffing Officer, Mr. B.G. Turner, marking their envelope "Private and Confidential" and quoting the position number, before the closing date, so as to expedite the appointment process.

20 December 1985.

University of Otago
Dunedin, New Zealand
ASSISTANT LECTURER OR LECTURER IN EDUCATION

Applications are invited from persons suitably qualified for teaching and research in the areas of human development and/or research design and measurement. Applicants should state any additional interests in other areas of Education.

Salary: Assistant Lecturer NZ$20,000 - $34,000 per annum, Lecturer NZ$28,000 - $35,000 per annum.

Intending applicants are invited to write for further information, available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Registrar of the University, P.O. Box 56, Dunedin, New Zealand.

Applications close on 31st January 1986. (91552) H1

The University College of Wales Aberystwyth
LECTURER IN PHYSICAL GEOGRAPHY

Applications are invited for the above post which arises as a result of the appointment of Dr B.E. Davies to the Chair of Environmental Science at the University of Bradford. Applicants should have research interests in contemporary environmental processes. The Department wishes to consolidate work in Applied Physical Geography but the precise field for future development will depend on the interests of the successful applicant. Salary on the Scale for Lecturers £7,520 to £14,925 per annum. Initial appointment will be made within the range £7,520 to £9,860 per annum.

Further particulars and application forms can be obtained from the Staffing Officer, The University College of Wales, Old College, King Street, Aberystwyth SY23 2AX (Tel: 0970 3177, Ext. 207). Closing date for applications: Friday, 17th January 1986. (91573) H1

LECTURER IN PREHISTORIC ARCHAEOLOGY

Position No: 667
New Position (Tenured)

Candidates should be specialists in Australasian, South East Asian and/or Pacific archaeology and ethnography but should also be capable of teaching world prehistory and archaeology and some social anthropology. Previous teaching experience in a university will be a distinct advantage and candidates are expected to have a good honours degree in prehistoric archaeology and a postgraduate degree.

The successful candidate will be expected to take up the appointment as soon as possible after 3rd February, 1986. Further information may be obtained from Professor G.E. Gruman. Telephone: ISD 61 07 73-2145 (direct line)

For both posts

Applications including the names and addresses of referees and quoting the position number should be sent to the Staff Office, University of New England, Armidale, N.S.W. 2351, Australia, prior to the closing date. Applicants should forward a copy of this advertisement to their referees and ask them to send their reports direct to the Staff Office, Mr. B.G. Turner, marking their envelope "Private and Confidential" and quoting the position number, before the closing date so as to expedite the appointment process.

20 December 1985.

University of Essex
Department of Computer Science
COMPUTER OFFICER

A new microprocessor-based teaching laboratory is being established to extend the use of computer based learning throughout the University with initial emphasis on Biology and Economics.

Applications are invited for the post of Computer Officer to assist with the development and maintenance of computer software for this teaching facility. Applicants should preferably have a degree in Computer Science. Appointment will be made either on the successful applicant. Salary on the Scale for Lecturers £7,520 to £14,925 per annum, under review, or for an applicant with appropriate qualifications and experience, on Grade 1A (£11,670 - £14,925 per annum, under review).

Applications (ten copies), including a curriculum vitae and the names and addresses of two referees, should reach the Registrar (S/362/7TES), University of Essex, Wivenhoe Park, Colchester CO4 3SQ, from whom further particulars may be obtained, by 27th December 1985. (91588) H1

Royal Holloway and Bedford New College
UNIVERSITY OF LONDON
EGHAM HILL · EGHAM · SURREY · TW20 0EX

Lectureship in Plant Biochemistry

Applications are invited for this new post from candidates with experience in any branch of Plant Biochemistry.

As well as contributing to the departments teaching programme, the appointee will be expected to join in the work of a recently formed plant exploitation and protection research group.

Further details of this post can be obtained from the Personnel Officer. Closing date for applications will be 20th December 1985.

(70700)

LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY
LECTURER IN PHYSICS

Applications are invited for the post of LECTURER in the Department of Physics. The successful applicant will join one of the existing research groups: Surface Physics; Non-Linear Optics; Magnetism and Solid State Physics; Mechanical Properties of Matter. The Lecturer will be expected to participate in the teaching on the Honours courses in Physics and in Electronic Engineering and Physics.

The appointment, which will commence from the earliest possible date, will be made in the lower half of the scale £7,520 to £14,925 (under review from 1 April, 1985).

Application forms and further details from Paul Johnson, Establishment and Staffing Officer, quoting ref: 85/3 PH. *Loughborough, Leicestershire. (72876)*

University of Otago
Dunedin, New Zealand
LECTURER OR SENIOR LECTURER IN INFORMATION SYSTEMS

Applications are invited for the above post in the Department of Quantitative and Computer Studies within the Faculty of Commerce. The primary purpose of the post is to assist with the teaching of Information Systems.

The Department, broadly following the curricula recommendations as defined by the ACM Curriculum Committee, in addition to courses in Computer Management, Data Processing, Systems Analysis, Decision Support Systems and Expert Systems, places emphasis on case studies, projects and computer based exercises. The Department is interested in fostering the transfer between the academic community and practitioners, and the appointee will be encouraged to conduct research on the applications of Information systems. Publication of research results in articles and an expository nature are thus encouraged.

Applicants within other associated disciplines, such as Accounting or Marketing, and who have a knowledge of Information Systems are encouraged to apply.

Salary:
NZ$28,000 - $35,000 per annum, Senior Lecturer NZ$37,000 - $47,000 per annum.

Intending applicants are invited to write for further information, available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Registrar of the University, P.O. Box 56, Dunedin, New Zealand.

Applications close on 15 March 1986. (91593) H1

The University of Zambia

Applications are invited for the

POST OF SENIOR LECTURER/ PROFESSOR

in the Department of Physics. Applicants should be experimental physicists with a PhD in Nuclear Physics or Solid State Physics and have a working knowledge of digital and linear electronics, computing and the application of microprocessors. The post-holder will train electronics or instrumentation at both the undergraduate and postgraduate levels.

The post will be tenable as soon as possible and the contract will run for two years initially. Salary will be in accordance with qualifications and experience within the range of K10,284 - K18,915. Appointment will be at a point on the scale by mutual agreement. In addition, the University currently provides partially amortisable (at 5% per annum) subsistence allowance and, subject to the University current housing policy, a low interest housing loan. The Department is interested in participating in a programme of staff development and consequently will contribute a sum equivalent to 12½% of the annual salary to the appointee's salary towards his superannuation obligations.

Candidates should send Three Copies of their curriculum vitae with full personal particulars, qualifications and addresses of three referees and date of availability to the Registrar, The University of the South Pacific, P.O. Box 1168, Suva, Fiji, not later than 27 December 1985. Candidates in the United Kingdom should also send a copy of their application to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

(91563) H1

The University of Surrey
Department of Mechanical Engineering
PROFESSOR OF MANUFACTURING TECHNOLOGY

A professionally qualified engineer is required to develop research and teaching in the area of advanced manufacturing technology. Applicants will have a distinguished record of research and experience of industrial application, demonstrated management ability and the willingness and capacity to undertake administrative responsibilities.

The appointee will be expected to head an Honours Degree course in Engineering Manufacture and to undertake research and to contribute to undergraduate teaching at all levels.

Salary will be in accordance with qualifications and experience within the range £12,156 - £18,915. Appointment will be for a contract period of three years with the possibility of renewal by mutual agreement. In addition, the University currently provides partially amortisable (at 5% per annum) subsistence allowance and, subject to the University current housing policy, a low interest housing loan. The Department is interested in participating in a programme of staff development and consequently will contribute a sum equivalent to 12½% of the annual salary to the appointee's salary towards his superannuation obligations.

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(91563) H1

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Applications are invited for the

POST OF SENIOR LECTURER/ PROFESSOR

in the Department of Physics. Applicants should be experimental physicists with a PhD in Nuclear Physics or Solid State Physics and have a working knowledge of digital and linear electronics, computing and the application of microprocessors. The post-holder will train electronics or instrumentation at both the undergraduate and postgraduate levels.

The post will be tenable as soon as possible and the contract will run for two years initially. Salary will be in accordance with qualifications and experience within the range of K10,284 - K18,915. Appointment will be at a point on the scale by mutual agreement. In addition, the University currently provides partially amortisable (at 5% per annum) subsistence allowance and, subject to the University current housing policy, a low interest housing loan. The Department is interested in participating in a programme of staff development and consequently will contribute a sum equivalent to 12½% of the annual salary to the appointee's salary towards his superannuation obligations.

Candidates should send Three Copies of their curriculum vitae with full personal particulars, qualifications and addresses of three referees and date of availability to the Registrar, The University of the South Pacific, P.O. Box 1168, Suva, Fiji, not later than 27 December 1985. Candidates in the United Kingdom should also send a copy of their application to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

(91563) H1

The Papua New Guinea University of Technology
LECTURER/ SENIOR LECTURER OR SENIOR/ PRINCIPAL TECHNICAL INSTRUCTOR IN CARTOGRAPHY

The Department of Surveying and Land Studies offers undergraduate and postgraduate courses leading to degrees in Surveying, Cartography and Land Management and to diploma level in Surveying and Land Valuation and Estate Draftsmanship.

Applicants should possess appropriate degree qualifications and, in addition, will have five or more years professional experience. Applicants with suitable professional qualifications and extensive technical experience will be considered for appointment at Senior Technical Instructor level. The salaries would be expected to have a sound basis in comparable positions, as well as experience in either Cartography or Surveying Drafting.

Salary: Lecturer Under Technical Instructor K17,555 p.a., Lecturer II/ Senior Technical Instructor II K19,460 p.a., Senior Lecturer/Principal Technical Instructor K21,255 p.a. (K1 = Stg. 0.6803 approx.). Date of appointment will depend upon qualifications and experience.

Applications will not be excluded from married couples where both have the qualifications to work at the University.

Applicants who may be able to arrange secondment from their present employer for a minimum of one year and not more than two years are also encouraged to apply.

Initial contract period is for 3 years. Other benefits include a salary of 24% based at 25%, support for approved research, appointment and repatriation fares, leave fares for the staff member and family, settling-in and settling-out allowances, six weeks paid leave, Education and medical benefits are available.

Detailed applications (two copies) with curriculum vitae, telephone numbers and the names and addresses of three referees should be sent to the Registrar, Private Mail Bag, Lae, Morobe Province, Papua New Guinea. Private Mail Bag, Lae, Morobe Province, Papua New Guinea. Applications should reach the Registrar by 31st January 1986. Applicants in the United Kingdom may obtain further information from the Papua New Guinea Office, 14 Waterloo Place, London SW1Y 4AR, telephone 01-930 0411.

University of Surrey
Department of Mechanical Engineering
PROFESSOR OF MANUFACTURING TECHNOLOGY

A professionally qualified engineer is required to develop research and teaching in the area of advanced manufacturing technology. Applicants will have a distinguished record of research and experience of industrial application, demonstrated management ability and the willingness and capacity to undertake administrative responsibilities.

The appointee will be expected to head an Honours Degree course in Engineering Manufacture and to undertake research and to contribute to undergraduate teaching at all levels.

Salary will be in accordance with qualifications and experience within the range £12,156 - £18,915. Appointment will be for a contract period of three years with the possibility of renewal by mutual agreement. In addition, the University currently provides partially amortisable (at 5% per annum) subsistence allowance and, subject to the University current housing policy, a low interest housing loan. The Department is interested in participating in a programme of staff development and consequently will contribute a sum equivalent to 12½% of the annual salary to the appointee's salary towards his superannuation obligations.

Candidates should send Three Copies of their curriculum vitae with full personal particulars, qualifications and addresses of three referees and date of availability to the Registrar, The University of the South Pacific, P.O. Box 1168, Suva, Fiji, not later than 27 December 1985. Candidates in the United Kingdom should also send a copy of their application to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

(91563) H1

University of Glasgow
Department of Statistics
LECTURESHIP IN STATISTICS

Applications are invited for the post of Registrar which will become vacant on 1 October 1986 on the retirement of Miss Anne Riddell. The holder of the post is senior academic administrative post in the University, is directly answerable to the Vice-Chancellor.

The salary will be not less than £21,000 within Administrative Grade IV.

Five copies of applications, together with the names of three referees, should be sent by 31 January 1986 to the Vice-Chancellor's Secretary, University of York, Heslington, York YO1 5DD (Tel: 0904 59861, Ext. 300) from whom further particulars are available. Please quote advertisement reference number S/5839. (91580) H1

University of York
REGISTRAR

Applications are invited for the post of Registrar which will become vacant on 1 October 1986 on the retirement of Miss Anne Riddell. The holder of the post is senior academic administrative post in the University, is directly answerable to the Vice-Chancellor.

The salary will be not less than £21,000 within Administrative Grade IV.

Five copies of applications, together with the names of three referees, should be sent by 31 January 1986 to the Vice-Chancellor's Secretary, University of York, Heslington, York YO1 5DD (Tel: 0904 59861, Ext. 300) from whom further particulars are available. Please quote advertisement reference number S/5839. (91580) H1

Universities continued

Victoria University of Wellington New Zealand
LECTURESHIP/ SENIOR LECTURESHIP IN ARCHITECTURE

Applications are invited from qualified persons for appointment at Lecturer or Senior Lecturer level in the School of Architecture. Applicants must have professional experience in commercial architecture and the construction industry, and demonstrate good understanding of the construction process and its management. Academic experience is strongly preferred but is not a prerequisite for appointment.

The appointee will be expected to participate in the work of the School in general, to undertake lectures in specialised areas and will assume responsibility for the teaching and development of construction and building technology studies, in accordance with normal University practice. The salary for Lecturer/Principal Technical Instructor: $21,255 p.a. (K1 = Stg. 0.6803 approx.). Date of appointment will depend upon qualifications and experience.

Further particulars of the lectureship may be obtained [illegible] may be obtained [illegible] Gordon Square, London WC1H 0PF, or from the Registrar, Victoria University of Wellington, Private Bag, Wellington, New Zealand, with whom applications close on 28 February 1986. (91585) H1

University of Liverpool
CHAIR OF EQUINE STUDIES

Equine Studies in the Department of Veterinary Clinical Science which will fall to be filled from 1st October, 1986.

The Chair has been established to strengthen and advance the clinical investigation of equine medicine and surgery in the University. The appointee will be expected to develop an active research experience and clinical teaching qualifications.

The salary will be not less than £18,855 per annum (under review).

Applications (3 copies), together with the names of three referees, should be received not later than 16th January, 1986, by the undersigned, The University, P.O. Box 147, Liverpool L69 3BX, from whom further particulars may be obtained. Candidates overseas who wish to do so may send one copy by airmail.

Quote ref: RV/225/THES. (91562) H1

The University of Manchester
Department of Chemistry
LECTURESHIP IN ORGANIC CHEMISTRY

Applications are invited for the above post tenable from October 1986. The person appointed will be expected to carry out investigations and postgraduate teaching, and to initiate a programme of independent research. Salary in the range £7,520 - £9,580 p.a. (under review). Superannuation.

Further information and application forms (returnable by 20th January) from the Registrar, The University, Manchester M13 9PL. Quote ref: 258/85/THES. (91595) H1

University of York
REGISTRAR

Applications are invited for the post of Registrar which will become vacant on 1 October 1986 on the retirement of Miss Anne Riddell. The holder of the post is senior academic administrative post in the University, is directly answerable to the Vice-Chancellor.

The salary will be not less than £21,000 within Administrative Grade IV.

Five copies of applications, together with the names of three referees, should be sent by 31 January 1986 to the Vice-Chancellor's Secretary, University of York, Heslington, York YO1 5DD (Tel: 0904 59861, Ext. 300) from whom further particulars are available. Please quote advertisement reference number S/5839. (91580) H1

University of Oxford
Inorganic Chemistry Laboratory
in association with St. Hilda's College or Wadham College
UNIVERSITY LECTURESHIP IN INORGANIC CHEMISTRY

Applications are invited for a University Lectureship in Inorganic Chemistry. Applicants may work in any branch of inorganic chemistry, including its borders with surface science, solid-state science, and biology. It is intended that this appointment should be held in conjunction with a tutorial fellowship at a college. The University has decided that priority in this case should be given to St. Hilda's College, which, however, under its statutes may admit women fellows only. Accordingly, if a woman is appointed, she may be offered a fellowship by St. Hilda's College. If a man is appointed, he may be offered a fellowship by Wadham College. Separate applications need not be made for the tutorial appointment.

Further particulars of the lectureship may be obtained [illegible] may be obtained [illegible] Road, Oxford OX1 3QR, to whom applications (five copies) and the names of three referees should be sent by 31st January, 1986. (91584) H1

Cambridge University
UNIVERSITY ASSISTANT LECTURER IN THE FACULTY OF CLASSICS

Applications are invited for a post of University Assistant Lecturer in the Faculty of Classics, to take up appointment on 1 October 1986.

The successful applicant will be required to lecture and pursue research in the field of Ancient History.

The appointment will be for three years, with the possibility of reappointment for two years.

Stipend, for persons not ordinarily resident in College is: £8,205 a year, rising by four annual increments to £10,954.

Further information about the duties and conditions of appointment may be obtained from the Secretary of the Appointments Committee, Faculty of Classics, Sidgwick Avenue, Cambridge CB3 9DA, to whom applications (ten copies), including a curriculum vitae, should be sent, or two or three referees, should be sent as soon as possible but not later than 10 January 1986. (91579) H1

University of St Andrews
Department of Psychology
TEMPORARY LECTURESHIP

Applications are invited for a temporary lectureship for a maximum of 27 months, during the research leave of Doctor M.D. Rugg. The salary is being provided by a Fellowship Grant given by the M.R.C. Preference will be given to candidates with teaching interests and research experience in one or more of the following areas: cognitive psychology, precognition, neuropsychology. The appointment is tenable from 1st October or as soon as possible thereafter, starting salary £6,981 - £9,476 (under review), plus U.S.S.

Applications (3 copies preferably in typescript) with the names of 3 referees should be sent to Mrs Clarke, Oxford University Computing Service, 13 Banbury Road, Oxford OX2 6NN. Tel: (0865) 56721. Closing date for the return of application forms is 6th January 1986. (91581) H1

University of Canterbury New Zealand
LECTURER IN PLANT PHYSIOLOGY

Applications are invited for the position of Lecturer in the Microbial Sciences in the subject area of Plant Physiology. Applicants should have a proven record in Whole Plant Physiology and an ability to interact with existing staff in plant biochemistry, plant pathology, genetics and ecology. Some experience in plant tissue culture could be an advantage.

The salary for Lecturers is on a scale from NZ$28,000 to $35,000 per annum.

Further particulars and Conditions of Appointment may be obtained from the Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Administrative Assistant (Appointments), Victoria University of Wellington, Private Bag, Wellington, New Zealand, with whom applications close on 28 February 1986. (91585) H1

Cambridge University
UNIVERSITY ASSISTANT LECTURER IN THE FACULTY OF CLASSICS

Applications are invited for a post of University Assistant Lecturer in the Faculty of Classics, to take up appointment on 1 October 1986.

The successful applicant will be required to lecture and pursue research in the field of Ancient History.

The appointment will be for three years, with the possibility of reappointment for two years.

Stipend, for persons not ordinarily resident in College is: £8,205 a year, rising by four annual increments to £10,954.

Further information about the duties and conditions of appointment may be obtained from the Secretary of the Appointments Committee, Faculty of Classics, Sidgwick Avenue, Cambridge CB3 9DA, to whom applications (ten copies), including a curriculum vitae, should be sent, or two or three referees, should be sent as soon as possible but not later than 10 January 1986. (91579) H1

University of Hong Kong
LECTURER IN ANATOMY

Applications are invited for a Lectureship in the Department of Anatomy. Candidates should possess a medical qualification and/or a postgraduate degree in science together with experience of teaching in one or more of the following anatomical specialities (gross anatomy, microanatomy, histology and cell biology). The appointee will be expected to undertake research, preferably in one of the Department's specialities of Internal Neuroanatomy, Neuromuscular Biology, Neurochemistry, Reproductive Biology, Developmental Anatomy and Oral Biology.

Annual salary (superannuable) is on an 11-point scale: HK$161,880 - $68,100 (approx. £14,370 - 34,030; sterling equivalent as at November 28, 1985). Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 15% of gross income. Housing benefits at a rental of 7½% of salary, children's education allowances and medical benefits are provided.

Further particulars and application forms may be obtained from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Secretary's Office, University of Hong Kong, Hong Kong. (Closes: 28 February 1986. (91566) H1

Brunel University
Faculty of Education and Design
LECTURESHIPS (2)

Applications are invited for two lectureships from candidates with interests in promoting design to undergraduates of design or industry and to potential school-teachers. Candidates should be qualified in engineering technology and have developed some aspect of design experience in product or industrial design. Research activity will be expected. It is hoped that at least one of the posts will encourage someone from industry to join the University.

The successful candidates will work substantially at the Runnymede Campus, Englefield Green, Egham, Surrey.

Salary will be within the Lecturer scale - £7,520 to £15,525 per annum (under review), with £1,897 per annum London Allowance, with USS benefits.

Application form and further details may be obtained from the Personnel Secretary, Brunel University, Uxbridge, Middlesex UB8 3PH on receipt of a self-addressed envelope. Closing date: 30 December 1985. (91564) H1

University of Oxford
in association with Wadham College
UNIVERSITY LECTURESHIP IN MODERN CHINESE

Applications are invited for the above post, tenable from 1 October 1986 or as soon as possible thereafter, stipend according to age on the scale £7,800 - £16,350 with a further 4 per cent special payment pending the outcome of national salary negotiations). The successful candidate may be offered a Fellowship at Wadham College.

Further particulars may be obtained from Miss J.M. Noon, Oriental Institute, Pusey Lane, Oxford OX1 2LE to whom 8 copies of normal application (one only from overseas candidates), naming three referees, should be sent not later than 31 January 1986. (91565) H1

Oxford University Computing Service
COMPUTING IN THE ARTS ADVISOR

Oxford University Computing Service has a vacancy for an external advisor in computing in the arts, for which it is a leading exponent. The successful applicant will concentrate on supporting and advising external users of the Lasercomp photopsetter and will also be expected to provide some support for users of the Kinetic digital character reader, the Oxford Concordance Program and the Oxford Text Archive.

The appointment will be on the Research Support 1B Scale with initial appointment in the range £6,865 - £9,275 per annum, scale under review) according to age and experience. The post is available until October 1988.

Further details and application forms can be obtained from Mrs Clarke, Oxford University Computing Service, 13 Banbury Road, Oxford OX2 6NN. Tel: (0865) 56721. Closing date for the return of application forms is 6th January 1986. (91581) H1

University of Canterbury New Zealand
LECTURER IN PLANT PHYSIOLOGY

Applications are invited for the position of Lecturer in the Microbial Sciences in the subject area of Plant Physiology. Applicants should have a proven record in Whole Plant Physiology and an ability to interact with existing staff in plant biochemistry, plant pathology, genetics and ecology. Some experience in plant tissue culture could be an advantage.

The salary for Lecturers is on a scale from NZ$28,000 to $35,000 per annum.

Further particulars and Conditions of Appointment may be obtained from the Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

Applications close with the Registrar, University of Canterbury, Private Bag, Christchurch, New Zealand, on 31 January 1986. (91582) H1

University of Oxford
UNIVERSITY LECTURESHIP IN MODERN CHINESE

Applications are invited for the above post, tenable from 1 October 1986 or as soon as possible thereafter, stipend according to age on the scale £7,800 - £16,350 with a further 4 per cent special payment pending the outcome of national salary negotiations). The successful candidate may be offered a Fellowship at Wadham College.

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University of Newcastle upon Tyne
Computing Laboratory
PROFESSORS/ READERS

Applications are invited for a number of senior posts in the Computing Laboratory, tenable immediately. These posts have been established as part of a U.G.C. initiative to increase support for Computing Science Departments. Appointments may be offered at the level of Professor or Reader according to the qualifications and experience of the successful candidates.

Applications will be considered from candidates with experience and interest in one or more of the following areas:

(a) Real-time Systems and Reliability;

(b) VLSI Design Tools and Computer Hardware;

(c) Computing Systems, Modelling and Performance Evaluation;

(d) Distributed Computing and Networks;

(e) Man/Machine Interaction and Program Support Environments;

(f) Functional Programming and Associated Machine Architectures.

Candidates should indicate in which of the above area(s) they are interested.

Appointees will be expected to lead research in their field and interact in collaboration with existing staff.

Salary will be at an the professorial scale or either salary scales.

Further particulars may be obtained from the Deputy Registrar, The University, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU with whom applications (15 copies), giving the names of three referees, should be lodged no later than 31st December 1985. (Applicants from outside the UK may submit one copy only) H1 (92300)

Queen Mary College (University of London)
ASSISTANT LIBRARIAN

Applications are invited for a post of Assistant Librarian mainly involved in subject work in the pure sciences and in information technology and computer science with some administrative responsibilities. Candidates should have a good honours degree in an appropriate subject and a professional librarianship or information science qualification; previous post-qualification experience of higher education libraries would be an advantage. Appointment is likely to be in the lower half of Scale IA, for senior library staff £7,520 - £14,925, (under review) and for London Allowance of £1,897 per annum.

Application forms and further details from the Assistant Personnel Officer, Queen Mary College, Mile End Road, London E1 4NS. Please quote reference 85/84/THES. Closing date 2 January 1986. (91509) H1

Queen Mary College (University of London)
Department of Electrical and Electronic Engineering
2 POSTS IN ENGINEERING

Applications are inviting to 2 posts in the Knowledge-Based Systems Group which is supported with research funds from ESPRIT, Alvey, SERC and industry. Research activities are focussed on controlling plant and manufacturing plant in large, complex industrial environments. Applications should have a medical qualification and/or a postgraduate degree in engineering, computer science or mathematics, preferably with experience of teaching in one or more of the following areas: anatomical specialities (gross anatomy, microanatomy, histology and cell biology). The appointee will be expected to undertake research, preferably in one of the Department's specialities of Internal Neuroanatomy, Neuromuscular Biology, Neurochemistry, Reproductive Biology, Developmental Anatomy, Dental Anatomy and Oral Biology.

Annual salary (superannuable) is on an 11-point scale: HK$161,880 - $68,100 (approx. £14,370 - 34,030; sterling equivalent as at November 28, 1985). Starting salary will depend on qualifications and experience. At current rates, salaries tax will not exceed 15% of gross income. Housing benefits at a rental of 7½% of salary, children's education allowances and medical benefits are provided.

Further particulars and application forms may be obtained from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Secretary's Office, University of Hong Kong, Hong Kong. (Closes: 28 February 1986. (91566) H1

Brunel University
Faculty of Education and Design
LECTURESHIPS (2)

Applications are invited for two lectureships from candidates with interests in promoting design to undergraduates of design or industry and to potential school-teachers. Candidates should be qualified in engineering technology and have developed some aspect of design experience in product or industrial design. Research activity will be expected. It is hoped that at least one of the posts will encourage someone from industry to join the University.

The successful candidates will work substantially at the Runnymede Campus, Englefield Green, Egham, Surrey.

Salary will be within the Lecturer scale - £7,520 to £15,525 per annum (under review), with £1,897 per annum London Allowance, with USS benefits.

Application form and further details may be obtained from the Personnel Secretary, Brunel University, Uxbridge, Middlesex UB8 3PH on receipt of a self-addressed envelope. Closing date: 30 December 1985. (91564) H1

University of Oxford
Lady Margaret Hall
TUTORIAL FELLOWSHIP IN JURISPRUDENCE

Applications are invited for a Tutorial Fellowship in Jurisprudence, to be held in conjunction with a University Lectureship (C.U.F.) from 1st October 1986.

Further particulars may be obtained from the Principal's Secretary, Lady Margaret Hall, Oxford OX2 6QA, who should receive completed applications (ten copies) by 15th January 1986. (91647) H1

University of Birmingham
Working with Industry and Commerce
CO-ORDINATOR OF CONTINUING EDUCATION UNDER THE PICKUP SCHEME

Applications are invited from graduates with experience in industrial/business training and/or continuing education and who possess relevant qualifications for the post of Co-ordinator of Continuing Education under the Pick Up Scheme.

Salary is in the scale £7,520 - £14,925 (under review), initially the appointment will be for two years, starting date to be agreed.

Further particulars from Mr A.F. Evans, Senate Division of the Registry, University of Birmingham, PO Box 363, Birmingham B15 2TT, to whom applications (3 copies) including a full curriculum vitae - naming three referees - should be sent by 23 December 1985. Previous applicants need not re-apply.

An Equal Opportunities Employer. (91648) H1

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Universities continued

The Cranfield Institute of Technology Silsoe College

Silsoe College, which works very closely with the agricultural and food related industries worldwide is expanding its teaching, research and consultancy activities. Two new posts have now been established.

SENIOR LECTURER IN MARKETING

Applications are invited from graduates who have a good honours degree in a relevant subject and preferably a higher degree as well. In addition to teaching and research interests the person appointed will have industrial and/or consultancy experience, in the U.K. and overseas. The person will be expected to teach marketing subjects at undergraduate, postgraduate and professional development levels, to supervise industrially-based and academic research projects, and to seek external funding for the College's activities. Preference will be given to applicants who already have an established reputation in a branch of the agricultural and food related industries.

Salary in on the University Senior Lecturer scale £14,700 to £18,414 per annum.

MANAGER MARKETING SERVICES UNIT

The Marketing Services Unit provides marketing research and planning services to public and private sector clients. A manager is now required to run the Unit, who has good academic qualifications and substantial experience of consultancy in the marketing area, preferably in a branch of the agricultural and food related industries.

The appointment is for five years initially and is on the Academically-Related Staff Grade III scale £14,700 to £18,414 per annum.

Application forms and further particulars may be obtained from the Head of Administration, Silsoe College, Silsoe, Bedford MK45 4DT. Tel: Silsoe (0525) 60428.

Informal enquiries to Professor Rod Hill, Head of Department of Marketing and Management at Silsoe College. (91644) H5

Worcester College Oxford

LECTURESHIP IN PHILOSOPHY

The College intends to appoint a Lecturer in Philosophy for two years from 1 October 1986. The Lecturer's duties will be to teach Philosophy for the College for up to twelve hours a week, mainly for the Honour School of P.P.E. An ability to teach Descartes and the Empiricists (including Mill) is essential. Application forms and further particulars may be obtained from the College Secretary, Worcester College, Oxford OX1 2HB. Completed forms should reach her by 24 January 1986. H1

Fellowships

University of Edinburgh

Alcohol Research Group,

Department of Psychiatry

RESEARCH FELLOW

"Developing alcohol education for schools"

Applications are invited for a three year appointment for an Educational psychologist for social scientists to develop and evaluate an alcohol education package for use in secondary schools. This exercise is jointly funded by the Alcohol Education and Research Council and the Brewer's Society. Experience of health education and/or survey research are desirable.

Salary in the range £7,746 - £12,513.

For further details apply to: Dr. M.A. Plant, Alcohol Research Group, Psychiatry Department, Morningside Park, Edinburgh EH10 5HF. Tel: 031-447 2011. Ext. 503/509.

Closing date: 20th December. 1985.

Please quote Reference No. 5300. (91646) H2

University of Warwick

RESEARCH FELLOWSHIP IN THEORETICAL PHYSICS

Applications are invited for a SERC Research Fellowship, tenable for three years from 1st September 1986 in the Department of Physics. The successful applicant will join the Theoretical Physics Group to work with Professor P.W. Butcher on the transport properties of electrons in small semiconductor structures made using modern device fabrication techniques. Collaboration with experimental groups working on low-dimensional systems in Warwick, Nottingham, GEC, IBM and Cambridge will be encouraged. The salary will be on Research Range 1A, £7,550 to £19,180 (under review) according to age and experience.

Further particulars may be obtained from the Registrar, University of Warwick, Coventry CV4 7AL (0203 523627). Closing date for applications is 24th January 1986. Please quote Ref. No. 18/A/85/L. (91596) H2

Personal

LOANS TO SALARIED WOMEN from £30 granted same day. Salaried Women's Postal Loans Ltd., 175 Regent St., W1. Tel: 01-734 1111/5. H21

IMMIGRATE ADVANCED £10k to £30,000. Written terms arranged. Regional Trust Ltd., 21 Dover Street, Piccadilly, London W1A 3AP. Phone 01-491 2934 or 499 3416. L000

Holidays and Accommodation

DRISCOLL HOUSE HOTEL. 900 single rooms, £5½ weekly, partial board. Apply 174 West End Road, London 992 4022. Tel: (01) 992 4772. (89166) H35

Polytechnics

City of London Polytechnic

Applications are invited for the following posts at Lecturer Grade I/Senior Lecturer levels in:

BANKING

(Ref: 85/93)

A graduate with sound banking or professional experience able to contribute to the teaching of banking subjects at degree and professional levels is required.

DATA COMMUNICATIONS AND DISTRIBUTED SYSTEMS

(Ref: 85/94)

A knowledge of wide-area and local-area networks is expected, along with an understanding of the hardware and software implications of distributed systems. Applications invited from practitioners and academics.

Salary Scale: LII - £8,964 p.a. to £13,749 p.a. or £12,771 p.a. to £14,553 p.a. under £15,801 p.a.

Salaries include London Weighting.

For further details and an application form, please write, on a postcard, to the Staff Records Officer, City of London Polytechnic, 117 Houndsditch, London EC3A 7BU, quoting the appropriate reference number. (91580) H3

City of London Polytechnic

Applications are invited for the following posts at Lecturer Grade II level:

GEOGRAPHY

(Ref: 85/96)

Candidates should have specialist qualifications, ideally in the broad field of Physical Geography and a proven research record.

PSYCHOLOGY

(Ref: 85/95)

To contribute to the department's teaching of physiological psychology at undergraduate level. An active research interest is essential.

FRENCH

(Ref: 85/97)

Candidates should have a first degree in French and an appropriate linguistic qualification with interest and experience in language and research methodology. Applied to language courses for the business world. An interest in developing language-related applications on a computer would be an advantage.

Salary scale: £8,964 p.a. to £13,749 p.a. including London Weighting.

For further details and an application form please write, on a postcard, to the Staff Records Officer, City of London Polytechnic, 117 Houndsditch, London EC3A 7BU, quoting the appropriate reference number. (91589) H3

HONG KONG POLYTECHNIC

(Director: Dr John L. Clark)

Deputy Director

Hong Kong Polytechnic, established in 1972, is a large and dynamic institution of higher education offering over 200 courses in a wide variety of subjects, at levels ranging from Diploma, Higher Diploma, and Professional Diploma through to Degrees. The number of enrolled students is approximately 25,000 with an equivalent full-time population of around 12,500. Recent development proposals envisage an increase to 13,250 FTEs by 1987/88 of which 2,000 will be on degree courses. The infra-structure (under active review) currently consists of 4 academic Divisions containing 17 Departments and Schools devoted to teaching and research, and a number of interdisciplinary Institutes and Centres.

Although approaching maximum student capacity in a few years' time, the Polytechnic is in a progressive state of development with current priorities emphasising Staff Development, Research, Technology Transfer, Information Technology and Systems, Continuing Education and the introduction of further programmes relevant to the needs of Hong Kong.

The post advertised, arising from the impending retirement of the present Deputy Director, Dr Y. K. Ching, MBE, JP, is tenable from mid 1986. It is of major importance to the Polytechnic and offers a great challenge to the successful candidate. The position forms part of a revised and functional Directorate consisting of Director, Deputy Director, and 4 Associate Directors designated: Academic; Academic Services and Continuing Education; Research and Development; and Administration.

Candidates should possess good academic and/or professional qualifications and will be expected to have enjoyed substantial and successful experience in a senior management position carrying executive responsibilities at institutional level, in a major institution of higher education.

The principal objectives of the post are to reinforce the Director in the leadership and management of the Polytechnic, and to deputise for the Director as and when requested.

Applicants will be required to demonstrate broad experience in both academic and resource planning, and in their effective coordination. Specific responsibilities include chairmanship of the Academic and Resources Planning Committee, one of the 5 standing committees of the Academic Board.

SALARY: HK$89,850 p.a. (approx. £41,775 p.a.)

TERMS AND CONDITIONS OF SERVICE

The appointment will be made initially on a fixed-term contract of four years, at the end of which a gratuity equal to 25% of salary earned over the whole contract period will be payable. Continuation thereafter is subject to mutual agreement. Other benefits include subsidised housing, leave with passages, medical and dental treatment and children's education allowance.

APPLICATION forms and further information are obtainable from the Association of Commonwealth Universities (Appointments), John Foster House, 36 Gordon Square, London WC1H 0PF. Completed application forms should be returned by *28th December 1985* with the 1st copy direct to the General Secretary, Hong Kong Polytechnic, Hung Hom, Kowloon, Hong Kong and the 2nd copy to the Association of Commonwealth Universities.

INTERVIEW of candidates on the UK preliminary shortlist take place in London in February 1986. (72096)

Sheffield City Polytechnic

Department of Electrical & Electronic Engineering

A number of vacancies exist for well-qualified candidates to fulfil an expanding Department and contribute to its continuing involvement in industrial electronics. The posts are:

PRINCIPLE LECTURER IN ELECTRONICS LII/SL

IN INFORMATION TECHNOLOGY LII

IN INFORMATION TECHNOLOGY LII

IN ELECTRICAL & ELECTRONIC ENGINEERING

(2-year fixed term post)

The areas to be covered by these appointments are flexible manufacturing systems; microprocessor-aided engineering; industrial electronics; systems testing; communications/optoelectronics; digital systems/computer technology; industrial automation.

Appointees will be expected to participate in consultancy and other external activities, in addition to teaching and laboratory development.

Salary scales: PL £13,749 - £15,309 (incl. - £17,289. SL £11,193 - £13,785 (incl. - £14,763. LII - £7,926 - £12,075.

Application forms and further details may be obtained from The Personnel Department, Sheffield City Polytechnic, Hallamba House, Pitsmoor Square, Sheffield S1 4BB. Tel: (0742) 20911 Ext. 2587. Closing date 18th December.

Sheffield City Polytechnic is an equal opportunities employer. (91470) H3

CITY OF BIRMINGHAM POLYTECHNIC

ACADEMIC REGISTRAR'S DIVISION

ASSISTANT ACADEMIC REGISTRAR (FACULTY) [2 posts]

Salary will be in the range £9,975 - £11,604

The posts will be sited in the Faculties of Business Studies and Law and Engineering and Science. The positions will carry responsibility for the effective functioning of the Faculty Office in providing for the administrative needs of the Faculty and in particular for support to course management, course development and the examination of students.

Applicants should be well qualified academically and have proven administrative skills and experience in higher education.

Application forms and further details from: Personnel Branch, City of Birmingham Polytechnic, 'F' Block, Perry Barr, Birmingham B42 2SU

Telephone: 021-356 9193, Ext. 215/216.

Closing Date: 20th December, 1985.

Applications from employees of the GLC or MCC's with relevant experience will be welcome.

An equal opportunities employer. (72090)

A MAJOR TEACHING AND RESEARCH INSTITUTION OF HIGHER EDUCATION

ASSISTANT SECRETARY (REGISTRAR)

Applications are invited from appropriately qualified and experienced candidates.

The successful applicant will have primary responsibility for general academic administration, in particular, the efficient management of the Registry including registration, admissions and examinations. A working knowledge of CNAA procedures and/or validation procedures applicable in a higher education establishment is essential.

He or she will be responsible to the College Secretary and will form part of the College senior administrative structure.

Salary Scale: £14,397 - £16,605

Application forms from the PERSONNEL OFFICER, GLASGOW COLLEGE OF TECHNOLOGY, COWCADDENS ROAD, GLASGOW G4 0BA (tel: 041 331 2043) to be returned within 14 days of the appearance of this advertisement. (72991)

GLASGOW COLLEGE of TECHNOLOGY

A Scottish Central Institution

Department of Mathematics, Statistics & Computing

PRINCIPAL LECTURER/SENIOR LECTURER/ LECTURER II IN INFORMATION PROCESSING SYSTEMS

Post No MSC/CS

Two new posts have been created as a result of increased student numbers in the Department. Applications are invited from candidates with appropriate experience in one or more of the following areas: formal methods, distributed data bases, and real-time information processing, together with experience in their application to industrial systems. Related knowledge of expert systems, hardware and software support and graphical applications would be an advantage.

The Department has an active research programme and is keen to develop further the area of [illegible] information systems and applications. The successful applicants will be expected to contribute to consultancy and/or research activities.

Applications are particularly welcomed from researchers completing a higher degree or those with current commercial or industrial experience.

Exceptionally well qualified applicants, able to provide leadership in one of the subject areas, may apply for a post at Principal Lecturer level.

SALARIES:

Principal lecturer:	£13,749 — £17,289
Senior lecturer:	£11,793 — £14,763
Lecturer II:	£ 7,926 — £12,705 (under review)

Closing date for completed application forms is Monday 3rd February 1986

For further details and application forms, please apply to the Staffing Office, extension 364.

oxford polytechnic

Gipsy Lane, Headington, Oxford OX3 OBP

Telephone: Oxford 64777

AN EQUAL OPPORTUNITIES EMPLOYER

The Hatfield Polytechnic

RESEARCH ASSISTANTSHIPS (LEA)

Applications are invited for Research Assistants to work on small particle and microbial cell characterisation based on laser light scattering. Two posts are available:

GRADUATE PHYSICIST OR ELECTRONICS ENGINEER

to develop a computerised optical system for real-time particle sizing, characterisation, and sorting.

GRADUATE BIOLOGIST OR MICROBIOLOGIST

to study microbial cells (mainly spores) using existing light scattering and computerised data analysis techniques.

Posts are offered for three years at a starting salary of £5,706 (with a possible top-up of £850 p.a. depending on qualifications and experience). Candidates would be expected to register for a higher degree.

Please quote reference 039a for first post, 039b for second

Application forms and further details from the Staffing Officer, The Hatfield Polytechnic, PO Box 109, College Lane, Hatfield, Herts AL10 9AB... (72756)

Polytechnics continued

The Hatfield Polytechnic — THE BRITISH LIBRARY

Compact Disc/Digital Optical Disc Technology

The British Library has initiated a major collaborative research programme with the Hatfield Polytechnic, to investigate information exchange in the research community. The work at Hatfield will concentrate on the design of data base structures suitable for implementation on optical-disc systems linked to selected personal computers. Two posts are available, on a three year contract.

Project Manager

Salary to £15,500

Should have a good honours degree in Electronic Engineering or Computer Science, have experience of project leadership/management, and preferably experience in one or more of the following: data base design; software development, interfacing protocols. He or she would be expected to provide the innovative leadership required for the work.

Experimental Officer

Starting salary to £10,000

Should be a graduate electronics engineer with experience in digital systems engineering, hardware interfacing and machine level programming. He or she would be principally concerned with the design of hardware interfacing.

Application forms and further details from the Staffing Officer, The Hatfield Polytechnic, P.O. Box 109, College Lane, Hatfield AL10 9AB, or telephone 07072 79802. Please quote reference 033.

Closing date for receipt of completed applications: 20 December 1985. (72974)

Department of Mathematics & Statistics Research

Fellowship in Controlled Stress Rheometry

£7,926–£8,886

Required to undertake a study of a controlled stress rheometer particularly in its oscillatory mode.

This project is financed by an SERC cooperative research grant and will be carried out in close collaboration with Carri-Med Limited. There will be an opportunity for the applicant to work in industry during the period of this research.

Applicants should possess at least a higher degree in Mathematics, Rheology or relevant engineering discipline. Additional experience in computing would be welcome. The appointment is tenable for a 15-month period, commencing not later than March 1, 1986.

Application forms together with further particulars may be obtained from the Personnel Officer, Plymouth Polytechnic, Drake Circus, Plymouth PL4 8AA. Tel: (0752) 264639. Closing date: January 10 1986. (72973)

Plymouth Polytechnic

Drake Circus, Plymouth Devon PL4 8AA

Leicester Polytechnic

School of Land and Building Studies

LECTURER II IN URBAN LAND ECONOMICS

(Post No 192)

Applications are invited from well qualified economists to teach economic principles and applied economic analysis to students on full-time and part-time land management, building surveying and building surveying courses. An interest in the economics of the property market, and the construction industry is an essential requirement.

This preferred candidate is likely to possess a good honours degree in economics with experience of teaching at degree level. Membership of an appropriate body such as the Royal Institution of Chartered Surveyors, Institute of Housing or the Royal Town Planning Institute, would be an advantage but the prime requirement is for a sound economist.

Salary £7,926 - £12,705 p.a.

Application forms and further details available from the Personnel Office, Leicester Polytechnic, PO Box 143, Leicester LE1 9BH. Tel: (0533) 551551. Ext. 2205. Closing date for applications: 30th December, 1985.

To discuss the post informally ring Professor David Chiddick, Ext. 2354 or 2372, or Michael Otley, Ext. 2658. (91573) H5

The Polytechnic of North London

Department of Food & Biological Sciences

L4 SL/LII ACCOMMODATION PLANNING AND CONTROL OR CATERING OPERATIONS

A lecturer is required in the Department of Food and Biological Sciences to teach either Accommodation Planning and Control or Catering Operations.

It is essential that applicants have the ability to integrate management and business studies with their area of technical expertise. Candidates should be graduates or have an appropriate professional qualification with relevant industrial experience. Salary: £8,964 - £15,801 (inclusive of London Allowance).

Applications and further details are obtainable from the Personnel Office, The Polytechnic of North London, Holloway Road, London N7. Tel: 609 9813 (24 hour answerphone service).

Closing date for the receipt of applications is 14 days from the appearance of this advertisement.

The Polytechnic of North London is an equal opportunities employer. (91567) H5

Leicester Polytechnic

Deputy Director/ Director Designate

The Governing Body invites applications for the above post vacant from 1st September 1986. The present Director will retire on 31st August 1987 and the person appointed will be appointed Director from 1st September 1987.

Candidates should have appropriate academic qualifications and management experience in higher education/research/industry/commerce/professions in order to lead a large highly successful institution into the 1990s.

Salary: Group 12 institution.

Particulars etc. from: The Secretary and Clerk to the Governing Body, P.O. Box 143, Leicester LE1 9BH.

Closing date for receipt of application forms: 31st December 1985.

EQUAL OPPORTUNITIES POLICY: Applications are welcome from suitably qualified and/or experienced people regardless of race, ethnic origin, religion, sex, marital status or disability.

The Polytechnic of Central London

Faculty of Engineering & Science

School of Applicable Maths

LECTURER II IN STATISTICS AND/OR MATHEMATICS, 2 YEAR TEMPORARY

Applications are invited from suitably qualified candidates for the above temporary two year appointment commencing [illegible]. Due consideration will be given to the area of applied statistics, but candidates with mathematical interests in artificial intelligence and expert systems are encouraged to apply. There may also be a possibility of other temporary appointments.

Further details available from the Personnel Office, telephone 580 2020 x 213. Application by curriculum vitae with the names of two referees to the Personnel Office, Polytechnic of Central London, 309 Regent St, London W1R 8AL, as soon as possible.

PCL is an equal opportunities employer. H3

Middlesex Polytechnic

Middlesex Business School

VISITING LECTURERS IN ACCOUNTING AND FINANCE

Applications are invited from qualified accountants who wish to combine their practical experience with the opportunity to pass on their skills on a variety of post-graduate professional and undergraduate courses.

Further information: David Hatton, Head of School of Accounting, Middlesex Business School, The Burroughs, London NW4 4BT. Tel: 01-202 6345, Ext. 401. (91578) H3

Humberside College of Higher Education

School of Information & Computing Studies

LECTURER II/ SENIOR LECTURER COMPUTER SYSTEMS ARCHITECTURE & COMMUNICATIONS TECHNOLOGY

Applications are invited from well qualified and experienced persons in computer systems architecture and communications technology on a wide range of courses including innovative undergraduate programmes in Business Information Systems and Computer Systems Management as well as Higher Diploma and other business studies courses. Applicants should hold appropriate qualifications and experience of commercial/industrial applications would be desirable. The College encourages a wide range of staff development and research activities.

L2 £7,926 - £12,705, SL £11,193 - £14,763 (pay award pending from 1st December 1985).

Further details and application forms from: The Personnel Office, Humberside College of Higher Education, Cottingham Road, Hull, Tel: 0482 440300. Closing date: 30th December 1985. (91561) H3

Colleges of Higher Education

ST. MARY'S COLLEGE OF HIGHER EDUCATION

The College is Roman Catholic offering courses leading to two-subject BA/BEd/BSc Honours degrees of University of Surrey and a variety of post-graduate courses. Currently there are about 1200 students half being registered for BEd degree.

LECTURER IN FRENCH

temporary half-time, LII scale.

To teach French language and 19th century French literature to BA/BED/BSc level.

LECTURER IN SPANISH

hourly rate £14.06

January to July—about 57 hours in blocks of three hours. To teach ab initio to first year BA/BSc students.

Further details from: **The Principal, St. Mary's College, Waldegrave Road, Strawberry Hill, Twickenham, Middlesex TW1 4SX**

to whom applications should be returned by 16 December. (70791)

NIHE

NATIONAL INSTITUTE FOR HIGHER EDUCATION DUBLIN

Professor of Computing

The School of Computing and Quantitative Methods offers a four year honours degree in Computing and has full-time and part-time graduate students engaged in research for MSc/PhD degrees. The School also contributes to other degree courses in the Institute. Members of the School are actively involved in industry and EEC sponsored research and consultancy projects.

In addition to academic duties, the successful candidate will be expected to function as Head of School for an initial three year term.

Candidates should be well qualified academically and have substantial research interests in addition to industrial, research or academic experience.

Application forms and further details are available from the Personnel Office, National Institute for Higher Education, Glasnevin, Dublin 9. Closing date: 3 January 1986.

SOUTH GLAMORGAN COUNTY COUNCIL

SOUTH GLAMORGAN INSTITUTE OF HIGHER EDUCATION (CARDIFF)

FACULTY OF BUSINESS AND LIBERAL STUDIES
DEPARTMENT OF BUSINESS AND STUDIES AND COMMUNICATIONS

SENIOR LECTURER MANAGERIAL FINANCE: Post No. SL/62

(Tenable from 1 January 1986 or as soon as possible thereafter).

Applications are invited from graduates and/or professionally qualified personnel with financial management experience. The ability to use computers for financial spreadsheet analysis, data base management and word processing is desirable.

Possession of a teaching qualification would be an added advantage.

SALARY — SENIOR LECTURER: £11,733 - £14,763

Further details and application forms may be obtained from the Personnel Officer, South Glamorgan Institute of Higher Education, Cyncoed Centre, Cyncoed Road, Cardiff CF2 6XD: Telephone: Cardiff (0222) 561111. Completed application forms should be returned within fourteen days of the publication of this advertisement.

Applications are welcomed from suitably qualified people regardless of their sex, marital status, race, religion, colour or disability. (72988)

General Vacancies

Food Research Institute

HEAD OF DEPARTMENT OF FOOD QUALITY AND HUMAN NUTRITION

Applications are invited for the post of Head of the Department of Food Quality and Human Nutrition in the newly established Food Research Institute, Reading.

The Department's research programme forms part of a coordinated programme of human nutrition within the Agricultural and Food Research Service and is integrated closely with work at the Food Research Institute, Norwich. The Rowett Research Institute and the Animal and Grassland Research Institute.

The programme at Reading will be centred on calcium bioavailability and calcium metabolism in relation to hypertension, nutritional aspects of processed foods in relation to essential fatty acid requirements, diet and lipoprotein metabolism, interrelationships between the intestinal microflora and diet, digestion and absorption of nutrients in the young animal and mechanisms of antigen handling in the gut.

The duties of the Head of Department will be to administer the research programmes within the Department and to collaborate with other Departments, Institutes and local medical practitioners. The appointee will be expected to develop a programme of human experimentation in parallel with work on animal models and will be a member of the Institute's management team. In addition to directing the research programme, the Head of Department will be expected to undertake studies and access to chalk downland nature reserve. Further details of appointment in regard to Industry's response to nutrition guidelines and the formulation of nutritional labelling and national food policies.

The Department has a staff of some 10 scientific and 21 support staff. Candidates should be well qualified in a relevant science and have research experience particularly in human nutrition. Knowledge and appreciation of the problems of the food industry would be an advantage. Appointment will be in Grade 6, minimum of the scale £17,005, rising by four increments to a maximum of £22,925. Non-contributory superannuation. Equal Opportunities employer.

Please apply with curriculum vitae, list of publications and names and addresses of three referees to the Secretary, Food Research Institute, Shinfield, Reading RG2 9AT. Please quote ref 85/13. Closing date 31st December 1985. (91557) H18

Field Studies

SPRINGHEAD TRUST A unique residential study centre in old mill building under the wooded, chalk downs of Hardy Country. Facilities for detailed woodland, fresh water studies and access to chalk downland nature reserve. Further details: Springhead Trust, Fontmell Magna, Shaftesbury SP7 0NO. Tel. 0747 811853. H36

PLEASE MENTION THE T.H.E.S. when replying to advertisements

Independent Colleges

NEW POSTS

ST. LOYE'S SCHOOL OF OCCUPATIONAL THERAPY

Applications are invited for the following posts.

1. **LECTURESHIP IN PSYCHOLOGY**
   The successful candidate will be responsible for teaching psychology and will be expected to contribute to other courses allied to psychology and its practical application.
2. **LECTURESHIP IN PHYSIOLOGY**
   The successful candidate will be responsible for teaching physiology and will be expected to contribute to the other courses in biological science and their practical application.
3. **LECTURESHIP IN OCCUPATIONAL THERAPY**
   The successful candidate will be expected to contribute towards the teaching of basic principles and application of Occupational Therapy.

For posts 1 and 2 a good honours degree is required in the appropriate subject. For post 3 a qualification in Occupational Therapy is required and preference will be given to candidates with recent experience in psychiatric or community practice and management.

For all posts there is the opportunity for research. There is the possibility of registration for a higher degree in the future.

The positions are available from the beginning of February 1986. Salary negotiable.

The closing date for applications is 11th January 1986. Please enclose c.v. together with the name and address of two referees and send to:

Dr. Rita E. A. Gobbi, Principal, St. Loye's School of Occupational Therapy, Millbrook House, Millbrook Lane, Topsham Road, Exeter EX2 6ES. (7483)

Colleges of Further Education

Further Education

Devon Centre for Further Education, Dartington College of Arts, Devon Centre for Further Education, Totnes, Devon.

Deputy Head of Department of Continuing Education

Applicants should be appropriately qualified, with experience in the fields of INSET, post-school and post-college education.

The person appointed will be expected to deputise for the Head of Department, and to play a major role in both current and future developments. Accommodation is available for the successful applicant.

Salary Scale: Lecturer Grade II (£7,926 - £12,705)

Further particulars and application forms are available from and returnable to Head of Department of Continuing Education, Devon Centre, Dartington College of Arts, Totnes. Closing date 23 December 1985.

(72892)

DEVON

ilea Inner London Education Authority

SOUTH WEST LONDON COLLEGE

Vice-Principal (Resources)

Applications are invited from experienced and imaginative educationalists with a background in the field of Management and Business Education and knowledge of commerce and industry.

Candidates should be graduates and/or professionally qualified with the necessary leadership qualities and broad educational experience at a senior level. The College top management team of the Principal and two Vice-Principals is so structured that a high level of interchangeability of functions between the three is essential. Experience of resource management and admin support would be an advantage.

Salary: Group 7 £21,528 ***(including £1,038 Inner London allowance).***

Further details and form of application returnable by 27th December 1985 from Deputy Admin Officer, South West London College, Tooting Broadway, London SW17 0TQ.

AN EQUAL OPPORTUNITIES EMPLOYER (70786)

EDUCATION DEPARTMENT WRITTLE AGRICULTURAL COLLEGE

APPOINTMENT OF PRINCIPAL

Applications are invited from well qualified and experienced candidates for this post which falls vacant in August 1986 on the retirement of the present Principal, Mr A. E. Maddison. The salary scale is currently £19,416 to £21,714.

Closing Date: 31st December 1985.

Further details and application forms are obtainable from the County Education Officer, PO Box 47, Threadneedle House, Market Road, Chelmsford, Essex. Tel: 0245 267222, Ext. 2880. (70783)

ESSEX County Council

Strathclyde Department of Education

Further Education

Applications are invited for the undernoted post. All candidates should have relevant industrial or commercial experience where appropriate.
Teacher training would be an advantage but training can be given on an in-service basis.

LECTURER

BELL COLLEGE OF TECHNOLOGY, Almada Street, Hamilton ML3 0JB.

ACCOUNTING. Lecturer 'A'

Applicants should hold a degree in Accountancy or an appropriate professional qualification. Previous teaching experience would be an advantage. The successful candidate will be required to teach at least two out of the last accounting disciplines, viz, Financial Accounting, Taxation, Auditing and Management Accounting up to HNC, HND and Final Professional Level

SALARY
Lecturer A £8,688–£12,777 (Bar) £13,716.

Placing on the salary scale will be given for relevant experience. Forms of application and further particulars can be obtained from the Principal of the college concerned to whom completed applications should be returned not later than 20th December, 1985.

EDWARD MILLER *Director of Education* (74974)

General Vacancies continued

Conference Advisers

Wilton House Conference Centre, near Steyning in West Sussex, is the home of the Wilton Park series of international conferences. Open to high-level participants from the 25 countries of the OECD, the conferences provide a forum for the exchange of views on a wide range of international and comparative national issues under the leadership of the Centre's academic staff. At least one post of Conference Adviser is now to be filled. Appointment will be for a period of 2 years initially, with the possibility of extension or permanence.

You would be responsible for developing themes and organising conference programmes, inviting speakers, chairing plenary sessions and discussion groups, interpreting as necessary from French and/or German [illegible] contributing intellectually, administratively and socially to the success of the meetings.

Preferably aged at least 30, you must have a degree with first or second class honours, or an equivalent or higher qualification, preferably in one of the social sciences or possibly in foreign languages; several years' postgraduate-level experience in academic work, public service, or the private sector; a sound knowledge of French and German; and good communicative skills. You should preferably have experience in social hosting at conferences.

Some overseas visits may be required.

Salary: £13505 rising to £18 960. Starting salary may be above the minimum.

For further details and an application form (to be returned by 16 January 1986) write to Civil Service Commission, Alencon Link, Basingstoke, Hants (answering service operates outside office hours). Please quote ref: G/6721.

Foreign and Commonwealth Office

The Civil Service is an equal opportunity employer

Research and Studentships

Research Associates: Information Technology

The Informatics Division at Rutherford Appleton Laboratory supports Information Technology research within SERC and has substantial involvement in the coordination of the Alvey programme in Intelligent Knowledge Based Systems (IKBS), Software Engineering (SE) and Man-Machine Interaction (MMI). There is in addition an established in-house research programme in Software Engineering (in particular formal specification and theorem proving) and embryo collaborative research and development projects in IKBS (Expert Systems, Intelligent front ends) and MMI (window management design, graphics tool kits).

The Division is also responsible for developing a UNIX distributed infrastructure facility. Major developments on UNIX are taking place on single user systems such as the ICL PERQ and SUN Microsystems machines, and multi-user systems such as the VAX and IBM compatible mainframes.

A number of Research Associates are required at various levels. The IKBS/MMI group has vacancies at Senior and Principal level to help initiate a research programme and coordinate external research. The Distributed Interactive Computing Group has two vacancies at Senior level to work respectively on basic UNIX systems developments and on local area networking in a UNIX environment. The SE group has a vacancy at Ordinary level to assist with programme coordination, and a vacancy at an appropriate level for someone either experienced in formal methods or recently qualified in a related subject.

Salaries, which depend on age and experience, will be within the following ranges:

Principal £12252 – £16573 per annum
Senior £ 9877 – £11220 per annum
Ordinary £ 7334 – £ 8722 per annum

The more senior posts demand substantial relevant research/development experience. Appointments will be made for three years in the first instance.

Contact Recruitment Office, Personnel Group, Rutherford Appleton Laboratory, Science and Engineering Research Council, Chilton, Didcot, Oxon OX11 0QX. Tel: (0235) 445435, quoting reference VN404.

Closing date for applications: 23rd December 1985

serc Rutherford Appleton Laboratory

UNIVERSITY OF EAST ANGLIA Norwich

EEC ESPRIT PROGRAMME

Three research staff are required for an EEC funded ESPRIT project 'Highly Secure Office Information Systems' in which the University of East Anglia is a partner. The aim of the project is to produce a set of guidelines which will be used as the basis for European standards in this field.

One post will be at Senior Research Associate level. Applicants must have a good Honours degree in computing studies or a cognate subject, with a PhD and/or substantial work experience in a relevant area. Salary will be in the range £11,205–£14,925 (under review)

Candidates for the two [illegible] remaining posts at Research Associate level should possess a good Honours degree in an appropriate subject, preference will be given to those offering research experience and/or a background in office information, business or office information systems. Salary will be in the range £8,600–£8,920 (under review) or £7,250–£12,150 (under review) according to age, qualifications and experience.

The posts will be tenable for two years from 1 January 1986. Applications including a full CV and the names and addresses of three referees should be sent to Professor K.N. Bhaskar, from whom further information may be obtained, at the School of Information Systems, University of East Anglia, Norwich NR4 7TJ.

(72279)

Research and Studentships continued

Christ Church Oxford

SCHOOLTEACHER STUDENTSHIP

The Governing Body of Christ Church intends, should there be a suitable candidate, to make an election to a Schoolteacher Studentship for Hilary Term 1987 (January to March).

A Schoolteacher Student must be employed full-time in secondary education, and have had some experience of, or be about to engage in, sixth form teaching, either as a head teacher or as an assistant teacher in a school in the United Kingdom.

A Schoolteacher Student must spend the whole of the University Term in Oxford. He/she will be provided free of charge with rooms in college, and with breakfast, lunch and dinner each day. He/she will be a member of the Senior Common Room for the duration of the appointment.

Applications, together with a curriculum vitae and a brief statement of the work the candidate intends to do in Oxford, (seven copies of all papers) should be addressed to the Very Reverend the Dean, Christ Church, Oxford, OX1 1DP, to reach him not later than 28 January 1986. Candidates are asked to name two referees and to request them to write directly to the Dean a letter which should reach him not later than 5 February 1986. H13

UNIVERSITY OF KENT AT CANTERBURY

Electronics Laboratory

SERC CASE Studentship

Applications are invited for an SERC CASE studentship which is available at the Electronics Laboratory. [illegible] possess an Upper Second Class Honours degree in Electronics or related subject. The studentship, which is for three years, is linked with Philips Research Laboratories, Redhill and is partly funded by them. The project is involved with Non-Ferrite FET circulators for S-Band Radar.

Interested persons should apply to the Assistant Registrar, Faculty of Natural Sciences, The Registry, The University, CANTERBURY, Kent CT2 7NZ by 19 December 1985. Please quote ref PG23/85/THES. (72078)

Adult Education

City of Newcastle upon Tyne Education Committee

LANGUAGE TUTOR (BURNHAM LECTURER 1) SECTION 11 FUNDED POST

Applications are invited from qualified teachers to work as a language tutor to adults from ethnic minorities. Duties to commence as soon as possible.

There will be some emphasis in the first instance, on work with the Chinese community. An ESL/EFL qualification would be an advantage, together with suitable experience and a working knowledge of an appropriate ethnic community language.

The person appointed should possess an appreciation of cultural diversity as well as sensitivity in working with ethnic minority parents and volunteer tutors.

The post will be open to applicants on either a full or part-time basis.

Applicants should indicate on which basis they wish their application to be considered.

Salary Scale - £6,207 - £11,037 (Max.) - £12,705.

Application forms and further particulars are available from the Director of Education, Civic Centre, Barras Bridge, Newcastle upon Tyne NE1 8PD, to be returned within fourteen days of the appearance of this advertisement.

The City Council is an Equal Opportunities Employer. Applicants are considered on the basis of their suitability for the post regardless of ethnic origin, sex, marital status or disability. (91568) H15

Research

Research in Macroeconomic Modelling and Forecasting

The Economic and Social Research Council, acting on behalf of the Macroeconomic Modelling and Forecasting Consortium which consists of HM treasury, the Bank of England and the ESRC, invites applications for research projects in, or directly related to macroeconomic modelling of the UK economy. Eligibility is restricted to established academic or independent institute researchers. Support will be offered from October 1987 for a maximum of four years.

The deadline for formal submissions is February 1986.

Guidelines to applicants and further information can be obtained from Christina Hadjimatheou.

The Economic and Social Research Council will be located at 1 Temple Avenue, London EC4Y 0BD, Tel 01-353 5252 until 1 January 1986, applications should thereafter be sent to 160 Great Portland Street London W1N 6DT, Tel 01-637 1499.

ESRC ECONOMIC AND SOCIAL RESEARCH COUNCIL (72982)

Courses

Royal College of Art
Department of Cultural History

HISTORY AND PHILOSOPHY OF ART HISTORY OF THE COMMUNICATIONS MEDIA CULTURAL STUDIES

Mid-career candidates and practitioners in the fields [illegible] are encouraged to apply. The [illegible]

Further details and application form available from: The Registrar, Royal College of Art, Kensington Gore, London SW7 2EU. Tel: 01-584 5020. Closing date 31 January 1986. (91643) H24

Royal College of Art
Department of Cultural History

THE GOLDSMITHS' COMPANY RESEARCH SCHOLARSHIP IN THE HISTORY OF THE APPLIED ARTS

Applications are invited from suitably qualified candidates for the above research scholarship. It is tenable for a two-year period of research in the Department of Cultural History, Royal College of Art, leading to the degree M.A. (RCA) by thesis.

The Scholarship is intended to support postgraduate research into the history of silversmithing and jewellery, Ceramics and Glass, Furniture, Fashion or Textiles.

Further details and application forms are available from:- The Registrar, Royal College of Art, Kensington Gore, London SW7 2EU. Tel: 01-584 5020. Closing date: 31 January 1986. (91642) H24

Victoria and Albert Museum/Royal College of Art

Applications are invited for places on a two-year Master of Arts course.

HISTORY OF DESIGN

Jointly taught and administered by the Department of Cultural History, Royal College of Art, and the Education Department, Victoria and Albert Museum.

Application forms and further details available from the Registrar, Royal College of Art, Kensington Gore, London SW7 2EU (Tel: 01-584 5020).

Closing date: 31st January: interviews (shortlisted candidates): February.

Some means-tested D.E.S. bursaries are available for eligible and suitably qualified candidates normally resident in England and Wales. Additionally, the Fitch Scholarship is open to applicants with a practical training in Design. (91600) H24

Scholarships

University of Birmingham

RESEARCH SCHOLARSHIPS IN ENGLISH LANGUAGE

The Department of English Language and Literature invites applications for two Research Scholarships, funded by Collins Publishers, tenable for 12 months from 1 January 1986 or as soon thereafter as possible. Candidates must have a good honours first degree and will be expected to register for the degree of M.Phil. in English Language. They will normally attend [illegible]

Each scholarship has the [illegible] £1,000 and includes the University registration fee.

Further particulars and enquiries naming two academic referees should reach Ms A. Renouf, Research Fellow, English Language Research, 337 Bristol Road, Edgbaston, Birmingham B5 7SW by 20 December 1985. (91586) H35

University of Oxford St. Cross College

GRADUATE SCHOLARSHIPS

The College offers a number of Graduate Scholarships, to a value of £250 per annum tenable for one to three years from 1st October 1986, open to men and women intending to work for a postgraduate degree or diploma of the University (in any subject). In addition the College offers F C Osmaston Scholarships on similar terms but restricted to men and women intending to work for a postgraduate degree or diploma of the University in a subject relevant to forestry.

Particulars from College Secretary, St. Cross College, Oxford OX1 3LZ, closing date for applications 10th February 1986. (91572) H35

Overseas

The Pennsylvania State University
Department of Economics

The Department of Economics invites applications and nominations for continuing and visiting appointments at all ranks starting August, 1986. Candidates should have strong interests in research and commitment to excellence in teaching. Responsibilities include teaching at the undergraduate and graduate levels, research and publication, supervising dissertations in the area of specialization, and advising students.

Salary ($30,000 and up) dependent upon qualifications and experience. The Department has a strong research orientation and considerable involvement with Census research centers. Candidates with interests in international finance, macroeconomics and econometrics preferred but those with other interests in economics will be given full consideration.

Send curriculum vitae, names and addresses of 3 referees, and copies of 3 recent research papers by January 15, 1986. Contact: James D. Rodgers, Head, Department of Economics, Box K, The Pennsylvania State University, University Park, PA 16802, USA. Tel: (814) 865-1456. An equal opportunity/affirmative action employer. (91683) H14

University of Natal DEPARTMENT OF BUSINESS ADMINISTRATION

DURBAN

Applications are invited from suitably qualified persons regardless of sex, religion, race, colour or national origin for appointment to the post of:

ASSOCIATE PROFESSOR

The Department wishes to appoint a person to take charge of its teaching and research in Decision Science.

The incumbent should preferably hold a doctoral degree, with several years teaching experience in the field, and expertise in management applications.

The applicant must have demonstrated ability to integrate the teaching of Decision Science with the use of micro computers. He/she will have available for use the library of the programmes in the Faculty's Micro Computer Centre, and must be able to update and develop this library.

The appointment carries an attractive salary package, details of which are obtainable from the Staffing Section on request (Telephone 031-816308). The salary offered will be determined according to the qualifications and/or experience of the successful applicant.

Application forms, further particulars of the post and information on pension, medical aid, group insurance, service bonus, staff bursary, housing loan and subsidy schemes, long leave conditions and travelling expenses on first appointment are obtainable from the Secretary, South African Universities Office, Chichester House, 278 High Holborn, London WC1V 7HZ. OR Registrar, University of Natal, King George V Avenue, Durban, South Africa, 4001, with whom applications, on the prescribed form, must be lodged not later than *31 January 1986* quoting the reference D91/85. (72881)

KING ABDULAZIZ UNIVERSITY
JEDDAH — SAUDI ARABIA

ENGLISH LANGUAGE CENTRE

The ELC provides courses in scientific and technical English for approximately 1,100 male and 500 female students drawn from six colleges at King Abdulaziz University.

Courses range from intensive programmes of 20 hours per week for foundation students to specialised reading skills courses of five hours per week. The Center has an academic staff of 60 well-qualified teachers recruited mainly from the U.K. and U.S.A. and is supported by fully equipped in-house media services -- a graphics studio, a reprographics and printing shop, TV studio, photographic studio and two language laboratories. A 20-position Apple computer laboratory has recently been established and now offers a variety of programmes in computer-assisted language learning.

The ELC is currently recruiting well-qualified teachers with relevant experience for June 1986. Teaching couples are especially encouraged to apply.

QUALIFICATIONS: M. A. in TEFL/TESL or Applied Linguistics.

EXPERIENCE: Minimum two years' experience teaching TEFL/TESL overseas.

STARTING SALARY: Attractive salaries depending on qualifications and experience.

BENEFITS:
1. Generous housing and furniture allowances;
2. End of contract gratuity;
3. Sixty days paid summer leave each year;
4. Baggage allowance;
5. Educational allowance for school-age children;
6. Transportation allowance;
7. Annual round-trip air fares.

CONTRACT: One-year, renewable.

APPLICATIONS: Write, including full curriculum vitae, current telephone contact and photocopies of qualifications and letters of experience to:

SUPERVISOR GENERAL ENGLISH LANGUAGE CENTRE KING ABDULAZIZ UNIVERSITY P.O. BOX 1540, JEDDAH-21441 SAUDI ARABIA.

THE EUROPEAN UNIVERSITY INSTITUTE
Florence
DEPARTMENT OF LAW

wishes to appoint an

ASSOCIATE PROFESSOR (A5)

with effect from 1st September 1986. Candidates with interests in comparative labour law and social law will be given special consideration. Appointments are for three years renewable.

Further information from Academic Service, EUI, I-50016 S. Domenico di Fiesole (FI), Italy. Closing date: 3rd February 1986.

(70789)

Announcement of Opening

BARNARD COLLEGE OF COLUMBIA UNIVERSITY
New York, New York 10027

Barnard College of Columbia University announces a new senior level position, starting in the 1986-87 academic year, as part of its program to build an outstanding mathematics department for talented women undergraduates, within the framework of an urban coed university. In addition to a commitment to this aim, candidates should present a distinguished record in scholarly research and teaching. Salary and terms will be competitive. Candidates should send curriculum vitae and the names of three references to Professor Joan Birman, Chairperson, Department of Mathematics, Barnard College, Columbia University, New York, New York 10027. The deadline for applications for the fall of 1986 is January 31, 1986. (70788)

Princeton University
Department of History

SENIOR POSITION IN MODERN CHINESE HISTORY

Applicants should send a copy of a curriculum vitae, to arrive by 1 February 1986, to: Robert L. Tignor Chairman, Department of History, Princeton University, Princeton, NJ 08544. (91609) H14

UNITED STATES. Academic positions at universities, colleges and other institutions of higher and further education are regularly available in most subject areas in all parts of the United States. For information on subscriptions to a monthly Bulletin providing details on positions write to Overseas Academic Opportunities, 949 East 29th Street, Brooklyn, New York 11210, USA. (91636) H14